Transportation and Communication

The National Survey of Historic Sites and Buildings
(Frontpiece). Laying Track in Wyoming during the construction of the Union Pacific Railroad, 1867.

Courtesy, Union Pacific Railroad
The National Survey of Historic Sites and Buildings

Theme XV
Westward Expansion and the Extension of the National Boundaries to the Pacific
1830-1898

TRANSPORTATION AND COMMUNICATION

1960

United States Department of the Interior
Fred A. Seaton, Secretary

National Park Service
Conrad L. Wirth, Director
PREFACE

This study is one of a series being conducted by the National Park Service as a part of the National Survey of Historic Sites and Buildings. Because sites associated with western history have generally received less attention than those in the East, the theme "Westward Expansion and the Extension of the National Boundaries to the Pacific, 1830-1898," has been divided into a number of subthemes, one of which is the present study of transportation and communication in the West. Two subjects that could have been included in the present study, national roads and steamboats on the western rivers, have been reserved for treatment in the more general theme, XVIII, "Travel and Communication."

The National Survey of Historic Sites and Buildings is a resumption of the Historic Sites Survey, which was begun in 1937 under the authority of the Historic Sites Act of 1935. During World War II it was necessary to suspend these studies. The Survey has now been resumed as part of the National Park Service MISSION 66 program.

When the Survey is completed, recommendations will be made to the Director of the National Park Service and to the Secretary of the Interior concerning sites which possess exceptional value in commemorating and illustrating the history of the United States. These evaluations will assist in the National Park Service in preparing the National Recreation Plan, which will include sites that might be administered by the National Park Service in order to round out the historical and archeological interpretative program within the National Park System. The Survey will recommend and encourage programs of historical and
archaeological preservation within the National Park System and will recommend and encourage similar programs being carried out by state and local agencies.

This study of transportation and communication is the work of three National Park Service historians: Ray H. Mattison, Region Two Office, Omaha; Robert M. Utley, Region Three Office, Santa Fe; and Charles W. Snell, Region Four Office, San Francisco. Mr. Snell served as coordinator for the theme study and wrote the historical narrative.

After completion, the study was presented to the Consulting Committee for the National Survey of Historic Sites and Buildings. The Committee consists of Dr. W·ldo Leland, Director Emeritus of the American Council of Learned Societies; Dr. S. K. Stevens, Executive Director of the Pennsylvania Historical and Museum Commission; Dr. Luis B. Wright, Director of the Folger Shakespeare Library; Mr. Earl H. Reed, Chairman Emeritus of the Committee on the Preservation of Historic Buildings, American Institute of Architects; Dr. Richard H. Howland, President of the National Trust for Historic Preservation in the United States; Dr. J. O. Brew, Director of the Peabody Museum of Archeology and Ethnology, Harvard University; Mr. Eric Gugler, Member of the Board of Directors of the American Scenic and Historic Preservation Society; and Mr. Frederick Johnson, Curator, The Robert S. Peabody Foundation for Archeology, Phillips Academy.

The overall Survey, as well as the theme study which follows, is under the general direction of John O. Littleton, Chief, National
Survey of Historic Sites and Buildings, who works under the general supervision of Herbert E. Kahler, Chief Historian, Branch of History, and Daniel B. Beard, Chief, Division of Interpretation, of the National Park Service.

The work of the National Survey profits from the experience and knowledge of a considerable number of persons and organizations. Every effort is made to solicit the considered opinion of as many qualified people as possible in reaching final selection of the most significant sites. Assistance from the following gratefully acknowledged:

Mrs. Clara S. Beatty, Director, Nevada State Historical Society, Reno; Mr. Earl Guyton, Nevada Pony Express Centennial Committee, Reno; Albert Colverwell, Historian, Washington State Parks and Recreation Commission, Olympia; Dr. Aubrey Neasham and Jack Dyson, California Division of Beaches and Parks, Sacramento; Thomas Vaughan, Director, Oregon Historical Society, Portland; Dr. Marion Dean Ross, Professor of Architecture, University of Oregon, Eugene; H. J. Swinney, Director, and Dr. Merle Wells, Historian, Idaho Historical Society, Boise; Arthur Woodward, formerly of the Los Angeles County Museum, Los Angeles, California; and Mr. William C. Everhart, Historian, Jefferson National Expansion Memorial, St. Louis, Missouri.

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Dr. William Peterson, Superintendent, Iowa Historical Society; Dr. William D. Aeschbacher, Director, Nebraska State Historical Society; Miss Lola Homsher, Executive-Secretary, Wyoming State Historical Society; Mr. Nyle Miller, Secretary, Kansas State Historical Society; Mr. Russell Fridley, Director, Minnesota Historical Society; and Mr. Russell Reid, Superintendent, State Historical Society of North Dakota.

The cover was prepared by the Western Museum Laboratory, National Park Service, San Francisco. The three maps in the report were prepared by Mr. Alfred W. La Riviere, Park Planning Aid, Division of Recreation Resource Planning, Region Four Office, National Park Service, San Francisco.

Conrad L. Wirth
Director
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INTRODUCTION

Transportation and communication in the Trans-Mississippi West, 1830-1898, is the epic story of man's conquest over nature, of ruthless economic warfare waged by man against man in the quest for fame, power, and wealth, and of the savage sectional struggle between the North and South for control of the nation's political and economic destiny. In the devious and interweaving interplay of these forces, involving as they did the fate of two-thirds of a nation, were forged the transportation and communication systems of the Far West.

Two hundred years had been required to advance the line of settlement from the Atlantic seaboard inland 1,000 miles to the Mississippi River; then suddenly, the remaining wild and unconquered two-thirds of the nation was settled and civilized within a 40-year period, 1850-1890.

Two factors made possible this amazing feat. The first was the application of the power of the national government, in the form of subsidies (from 1850 to 1872) which led to the development of a transcontinental system of transportation and communication in the Far West. The second factor was the successful employment of the recent brain children of the Industrial Revolution—the telegraph and the railroad—on a transcontinental scale in the period 1860-1884. The age-old problems of distance, time, and weather crumbled before the combined forces of these inventions and the power of the federal government.
The national government played a key role in meeting these important problems. The distances in the Far West were too vast, the population too sparse, and the traffic too light, to enable private enterprise, unassisted, to successfully bridge the gap to the Pacific. Into this great breech stepped, however uncertain, the federal government to provide the means that made possible the development of the first crude system of overland transportation and communications to the Pacific. For it was the federal subsidies, in the form of mail contracts, that from 1850 to 1857 sent the pioneer mail carriers out across the prairies. It was also federal monies that set in motion and kept turning the wheels of the transcontinental overland mail stages from 1858 to 1869, and it was in hopes of gaining federal subsidies that the hooves of the Pony Express thundered across the plains from 1860 to 1861. Finally, it was United States bonds and land grants that enabled the first daring promoters and speculators to successfully undertake and complete (1860-69) the first transcontinental telegraph and railroad lines to the Pacific. By this material assistance the federal government overcame the initial inertia that, left to the resources of private capital alone, it would otherwise have taken many years to surmount.  

From 1850 to 1872 the United States Government, therefore, held the keys to the means of opening a vast and potentially rich inland empire. The nation's capital thus became the scene where

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1The federal government further assisted the development of a transportation system by providing large sums of money that enabled the Topographical Engineers of the U. S. Army to explore and open routes in the West. The federal government also provided large subsidies for the construction of roads, under the supervision of the U. S. Army and the U. S. Department of Interior, in the West.
companies and individuals battled for the privilege of gaining the critical mail contracts and subsidies that might enable them to operate successfully in the Far West. The failure to protect one's interest in Washington, thereby resulting in the possible cancellation or reduction of the essential contract, was often a more vital factor in determining whether or not a contractor went into bankruptcy than his operations out upon the prairie.

Because Washington was the center of decision, the problems of transportation and communication in the Far West were inevitably drawn into the swirling vortex of sectional discord that rose in ever increasing crescendo from 1850 to 1861. For the North and South were then hotly debating the question of whether this Nation could long endure half slave and half free. All proposals coming before the national legislature, regardless of their intrinsic merit, were therefore regarded from the viewpoint of their possible effect upon the outcome of the sectional struggle. Statesmen, both North and South, were convinced that the nature of the Far West justified, and the resources of the federal government were adequate to, only a limited development of transportation and communication facilities to the Pacific. One overland stage route and one railroad to the Pacific, they held, should suffice. As the railroad was expected to follow the initial stage route, and as most of the wealth of the Far West would of necessity drain east over these facilities, the location of that route, and particularly the choice of the eastern terminus, became questions of the highest political consequence in the councils of the North and the South. Which section would reap
the economic benefits that would follow from the development of these lines and thereby be strengthened in the contest for control of the national government? Such, in brief, are the complex factors that inevitably affected the development of Transportation and Communication in the Trans-Mississippi West, 1830-1898.

With the acquisition of Oregon in 1846 and the conquest of California in 1848, the national boundaries, almost overnight, leaped westward in a single bound 2,000 miles to the shores of the Pacific. But surely, Americans reasoned, judging by past performance, the settlement and development of this vast territory would take many generations. Unfortunately, however, for the advocates of the slow, orderly processes of settlement, fate now took a hand--gold was discovered in California in 1848. The mad ensuing rush of gold seekers increased the American population of the new El Dorado from a mere handful to about 100,000 by 1850 and to almost 380,000 by 1860. Similarly, Oregon's population increased from some 13,000 in 1850 to more than 52,000 by 1860. On the strength of these developments California was admitted as a State in the Union in 1850 and Oregon followed in 1859. Problems that should not have arisen for many years thus challenged the nation almost before the ink had dried on the documents that incorporated the Far West into the United States.
the Pacific Coast. But between these two lines of civilization lay a vast, wild empire that, except for the Mormon community at Salt Lake City, was inhabited solely by great buffalo herds and warlike tribes of Indians. The Trans-Mississippi West was then a land of magnificent distances, of endless prairies, mighty mountains, burning deserts, and above all, of terrible isolation. The bridging of this untamed chasm was one of the major problems confronting the United States in the mid-nineteenth century, and in the accomplishment of this mighty task lay the key to the rapid conquest of the Far West in the period 1860 to 1890.

Congress, in 1847, undertook the first step in the long effort to solve the problems of communication by providing the funds and authority to establish an ocean mail service to the Pacific Coast. From 1849 to 1858 this was the swiftest and most convenient route by which to send mail or travel from the East to California. In 1850 Congress followed up its initial step by establishing a number of inland mail routes that provided the first primitive communication system for the trading posts, military forts, and mining camps so widely and thinly scattered between the Mississippi River and the Sierra Nevada. These pioneer mail carriers ventured out across hundreds of miles of open prairie and through Indian dangers without benefit of shelter or assistance in the event of disaster. These were the bold and enterprising men who, by exploring the various routes, developing efficient methods of overland transportation, and establishing systems of way stations
along the road in the period 1850-57, made possible the rapid and successful organization of the great overland staging in 1858.²

Concurrently with these early improvisations in the transportation system, Westerners also appealed, unsuccessfully, to the Federal Government, from 1850 to 1861, for assistance in constructing the first railroad and telegraph to the Pacific. Frustrated by the sectional dispute in their efforts to apply the latest mechanical devices of the age to the problem, Westerners were forced to fall back on an expedited overland stage and mail service as the best available intermediate and temporary substitute. After the usual sectional debate, Congress passed legislation in 1857 that provided the money necessary to operate a fast mail stage service from the Mississippi to the Pacific. The Southern-dominated executive branch established the route across the southern portion of the continent. The successful operation of the contractor over this southern line from 1858 to 1861, however, served to whet the appetite and desire of the Northern and Western advocates of a similar expedited service over the shorter and more populous central route. Thus was initiated in 1859 the great competitive effort by private enterprise of a rival stage line over the central route: a line launched in the hopes of obtaining a substantial subsidy at least equal to that

²In the light of evidence presented in William H. Goetzmann, Army Exploration in the American West, 1803-1863 (New Haven, 1959), and W. Turrentine Jackson, Wagon Roads West (Berkeley, 1952), some of the credit for discovering and opening these early mail and stage routes should also be given to the Topographical Engineers of the U. S. Army.
of the southern route, or, in lieu of that, of having the contract shifted to the central route. From the exciting competition between these two routes emerged the golden age of the transcontinental stage, 1850-1869.

From this same competition was also born the Pony Express, 1860-61, a device conceived as a means of irrefutably demonstrating the superiority of the central route over the southern route. The tableau presented by these daring riders as they dashed across the continent from the Missouri River to California in ten days' time is one that immediately caught the imagination of the world. Although financially a failure, the Pony Express succeeded in its main mission of advertising the central route, and this, together with the outbreak of the Civil War, resulted in the shifting of the Overland Mail contract to the central route.

Of the other contributions of the Pony Express Le Roy Hafen has written: "By shortening the distance between the Atlantic and Pacific Coasts it helped to unite the Pacific Coast and the Rocky Mountain region to the Union during the first perilous year of the Civil War. It showed the conquest of the West in one of its most spectacular phases, and is an act in the great western drama that will always be recalled and reenacted as one of our precious heritages."  

From 1861, through the critical years of the Civil War, and until 1869, the great Overland Mail operated over the central route. Then in May 1869, with completion of the first railroad to

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3 Le Roy R. Hafen, The Overland Mail, 1849-1869 (Cleveland, 1929), 190-191.
the Pacific, the era of transcontinental staging came to an end. In summing up its place in history, Hafen has written: "It was the last link between the old and the new, in overland transportation. Along with the buffalo and the roving Indian, it lived its day and passed. For twenty years its record is interwoven with the development of the Trans-Mississippi West.

"The stage-coach . . . and the mail service . . . was . . . a connecting link with the old home." ¹

With the secession of the South in 1861, the way was at last cleared for the enactment, in 1862, of the first federal legislation designed to assist in the construction of a transcontinental railroad. Serious construction on this line, however, did not get under way until 1865. The end of the Civil War then freed for the task many skilled engineers, an abundant supply of labor, and also much war-created capital and industry. With these resources available, plus the crucial federal subsidies, the first transcontinental railroad was finished in four years' time. The driving of the "last spike" on May 10, 1869, at Promontory, Utah, was in truth a momentous occasion, for it sounded the death knell and marked the beginning of the rapid end of the untamed West.

Within 15 years' time of this event--by 1884--three other great railroads had successfully pushed their way across the continent. Under the impact and hammer blows dealt by these four mighty transcontinental roads, the western frontiers

¹Hafen, Overland Mail, 329.
disintegrated rapidly. As Frederic Paxson put it: "Never again could the wild Indians range the plains from the Rio Grande to the Assiniboin. The Pacific railroads split the northern and southern plains forever and destroyed the possibility of wild life as a permanent condition." The great buffalo herds were now soon slaughtered, and the power of the Plains Indians was rapidly broken.

The introduction of cheap transportation made profitable the working of low grade ore. The mining frontier now took a new lease on life and expanded. As the railroads crossed the continent between 1865 and 1885, they "brought the cow country into being and destroyed it forever."

By building their lines far in advance of the lines of settlement, the continental railroads brought within easy reach every considerable section of the West and thus abolished the isolation that had been a characteristic of the American frontier. They also bore heavily upon the open frontier through

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5 Frederic L. Paxson, History of the American Frontier, 1763-1893 (Boston, 1924), 501.

6 This aspect has been treated in the National Survey of Historic Sites and Buildings subtheme study: Military and Indian Affairs, 1830-1898 (National Park Service, 1959).

7 The National Survey of Historic Sites and Buildings subtheme report, The Mining Frontier (National Park Service, 1959), has treated this subject in detail.

8 Quoted in Paxson, History of the American Frontier, 533. The influence of the railroads on the Western cattle industry is also discussed in Robert E. Riegel, The Story of the Western Railroads (New York, 1926), 283; and L. L. Waters, Steel Trails to Santa Fe (Kansas, 1950), 148-149. The subject has been treated in detail in the National Survey of Historic Sites and Buildings subtheme report, The Cattlemen's Empire (National Park Service, 1959).
the stimulation of sales of their millions of land grant acres. To achieve this end, the railroads advertised widely, both in the East and in Europe, the resources of the West and the valuable land available along the route of their roads. Thousands of settlers were thus induced to cross the Atlantic and then hurried west via the iron horse to take up farming on railroad and public lands. It is therefore evident that the transcontinental railroads played a decisive role in the rapid opening and settling of the West, 1869-1890. Due to the acceleration made possible by the iron horse, the processes of settlement that had previously required 200 years to people one-third of a continent, were now condensed into a 30-year period during which the remaining two-thirds of the country was tamed.

Such then, were the great constructive benefits that flowed from the development of a system of transcontinental railroads in the Far West. There was also, however, another side to this coin. The daring promoters and speculators, who in the hopes of fame and fortune built the early transcontinental railroads (the entrepreneurs who developed the stage and express lines are also included in this category), were as ruthless as the savage land they successfully conquered. They did not welcome competition.

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As rival lines threatened to invade the territory held by these
giants, they battled fiercely—employing money, courts, legis­
latures, and bullets, in savage and sometimes even bloody wars to
protect their monopolies.

By 1884, when four great lines—the Northern Pacific,
the Santa Fe, the Southern Pacific, and the Union Pacific—had
succeeded in reaching the Pacific, the competition became intense.
Each road tapped a vast inland empire of great potential wealth.
Traffic in the unsettled West increased at an amazing rate; yet
it could not keep pace with the speed with which the facilities
for handling the commerce were built. Revenues were therefore
frequently insufficient for profitable operations, and the rail­
roads therefore engaged in bitter rate wars for the purpose of
diverting to their own lines as much of the existing traffic as
possible. The law of the jungle prevailed. In areas that were
safe from competition the rates were set at all the traffic
would bear. In disputed territories, however, rate cutting, the
rebate, and discrimination between long and short hauls, were
applied with vicious effects. The disastrous economic conse­
quences of this intensive competition soon became apparent to
the railroads involved. Periods of rate cutting would then be
followed by "pools" or agreements, whereby the transcontinental
and local traffic of a disputed territory would be divided among
the combatants according to a mutual plan. Periods of peace
would follow, with the rates set and the volume of traffic di­
vided, until one railroad believed itself in a strong enough po­
sition to disregard the terms—thus launching a new rate war.
The constantly expanding rail facilities of the Far West therefore ever widened the field of competition. (In 1893 a fifth road—the Great Northern—reached the Pacific.) As competition expanded so did the "pools" until they embraced much of the country, and thus confronted the nation with a new problem.  

With unmitigated gall and a scrupulous disregard of any interest but their own, the great railroad magnates of the western transcontinental lines exuberantly maneuvered like sovereign entities above and beyond the law in the last half of the nineteenth century. Giving as good as they received, they joined the enemy when they could not crush him. Contributing much to society, they also saw to it that they were usually amply rewarded in the material goods of this world. Surely, however, considering the immense stakes played for, the uninhibited audacity exhibited, and the great benefits issuing from their accomplishments, the western railroad tycoons must be ranked among the greatest of the pioneers of the West.

10 In the interests of brevity the problem of rate wars and pools will not be again considered in this report. Detailed discussions of competition, with specific examples of "pools," etc., will be found in the following histories: Stuart Daggett, Chapters on the History of the Southern Pacific (New York, 1922), 362-365; Hedges, Henry Villard and the Railways of the Northwest, 147-211; Riegel, The Story of the Western Railroads, 187-188, 199-202, 217-228; Trottman, History of the Union Pacific, 173-174, 182, 192, 201-202, 214, 218-220; Waters, Steel Trails to Santa Fe, 173, 187, 192.

11 Stewart H. Holbrook, The Age of Moguls (New York, 1953), is a well written and interesting account that places the great western railroad magnates in the proper perspective among the company of other great industrial captains of the 19th century.
The gradual exposure, however, beginning in 1872, of the great power of these men and the transcontinental railroads, and of its misuse and abuse in their own interests, led inevitably to a demand for reform to protect the public interest.

State legislatures undertook the first action and attempted by means of legislation, but generally with unsuccessful results, to restrain the railroads. As the four great railroads crossed the continent, the problems became national in scope. Finally, in 1887, Congress found it necessary to pass national legislation on the subject in a further effort to control the railroads. The economic warfare and antics of the great transcontinental railroads in the Far West thus made a direct and material contribution to the passage of the Interstate Commerce Act of 1887, a law that marked the first federal attempt in the history of the United States to regulate a "big business" in the interest of society at large. 12

These then, in broad outline, are the complex and varied effects and ramifications of the story of Transportation and Communication in the Trans-Mississippi West from 1830 to 1898.

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12 Riegel, The Story of the Western Railroads, 289-304, discusses state and federal legislation on this subject.
In March, 1847, as a result of the acquisition of Oregon, Congress passed a law that provided for the construction of five steamships under the direction of the Secretary of Navy. The Secretary was further instructed to contract for the monthly transportation of the mail in these new vessels from New York and New Orleans to Panama and from that point to some port in Oregon. Compensation for the entire service over the 6,700-mile route was set by Congress at $199,000 per year.

Two ten-year contracts, running from October 1, 1848, were awarded. The contract for the New York to Panama portion of the route was secured by George Laws, while the second, for the Panama to Astoria route, was acquired by William H. Aspinwall. Through the efforts of Aspinwall, the Pacific Mail Steamship Company was incorporated in April, 1848, and the firm at once built three of the vessels. The first of these, the California, sailed from New York on October 6, 1848, bound for Oregon by way of Cape Horn. Stopping on the west coasts of Peru and Panama en route, the ship was nearly swamped by the first rush of gold seekers. The vessel completed her 15,000-mile voyage to San Francisco on February 28, 1849, thus achieving the double honor of inaugurating the first national communication system to the Pacific Coast and of depositing the first '49ers in California. Encouraged by the successful operation of the company, Congress, in 1851, increased the mail service to a semi-monthly schedule and the compensation to $348,250 per annum for the remainder of the contract.
From 1849 to 1855, the mail was transported across the Isthmus of Panama in canoes and on the backs of mules by the New Granada government under terms of the treaty of March 6, 1844. The gold rush and hordes of people striving to reach California, however, led Aspinwall and the Pacific Mail Company to build a 50-mile railroad across the Isthmus. This railway was completed through the steaming jungle in 1855, and thereafter the federal government paid Aspinwall $100,000 a year for the movement of mail over this line.

From 1846 to 1853 the ocean route was the quickest and easiest way of reaching California. By 1857, however, the Pacific Mail Steamship Company, the Panama railroad, and the United States Mail Steamship Company, were regarded in California and Oregon as a gigantic monopoly, making great profits, charging exorbitant prices, and providing inferior accommodations to the public. This hostile western attitude was a very important factor in bringing into being, in 1856-57, the expedited transcontinental Overland Mail as the only means of providing competition for the sea route. By 1860 the overland stages were carrying more letter mail than the ocean steamers, but the "heavy mail" continued to be largely transported by the sea route from 1857 to 1869.1

West Coast Express Companies, 1850-1859

The delivery of the mail by sea to the towns on the coast of California, however, did not solve the problem of getting the letters from those post offices to the bulk of the people, who lived in mining camps scattered far in the interior. Private express companies were

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1 These paragraphs have been drawn from Hafen, Overland Mail, 37-49, 206.
organized to meet this need. Charging a fee for each letter handled and acting as the authorized agent of the person employing their service, the express companies performed the service of delivering the mail from the post office to the inland camp.

Two eastern concerns, Adams & Company in 1850, and Wells, Fargo & Company in 1852, entered the express business in California and between them soon dominated that field on the Pacific Coast. By 1858, after bitter competition, the western branch of Adams & Company failed, and Wells, Fargo & Company thereby secured a virtual monopoly of the express and banking business in California. By 1860 the company also controlled most of the stage lines in that state and also to the mining camps in Nevada. Wells, Fargo & Company thus became a power to be reckoned with in the western field of transportation and communication and will reappear as such later in this narrative.²

The Pioneer Overland Mails, 1850-1857

The continued heavy overland immigration to the West, the development of the Mormon community in Utah, and the spreading mining frontier, created a population in the inter-mountain regions of the continent that also demanded a mail service. Congress responded to these petitions by establishing five overland mail routes between 1849 and 1858.

The first of these (in the order of consideration) was divided in two sections that later evolved into what was known as the Central Overland Route. Service overland on the eastern half

²Hafen, Overland Mail, 53-56, 68. Edward Hungerford, Wells Fargo--Advancing the American Frontier (New York, 1949), is an excellent history of this company.
of the Central Route was inaugurated in July, 1850, when the United States Post Office Department awarded a four-year contract to Samuel H. Woodson of Independence, Missouri. Woodson was to carry the monthly mail from the Missouri River along the Oregon Trail and through the South Pass to Salt Lake City, Utah, for an annual compensation of $19,500. One team or set of pack animals, usually mules—hence the name "Jackass Mail"—was used to make the entire trip. There were no relay stations between the two points for the rest and relief of the carriers and mules. Despite heroic efforts of the carriers, the 30-day, one-way trip, particularly in the winter time, was rarely made in scheduled time.

In 1854, W. M. F. Magraw received the second contract for this route, which provided for a monthly mail service, by means of four-horse coaches for $14,440 a year. Losses due to hostile Indians caused his compensation to be increased to $36,000 a year in 1855 and later, to the annulment of his contract in 1856. Hiram Kimball, bidding for the Mormon leaders, received the next contract for the route in October, 1856. Compensation for the monthly mail service was fixed at $23,000 per year. Brigham Young had plans for developing a great freighting and stage company over this route. In furtherance of this project, he began erecting stations and placing relays of horses and mules along the line in the spring of 1857. These bright prospects, however, were completely wrecked by the outbreak of the "Mormon War" in the fall of the same year. When peace was restored, S. B. Miles was the new contractor.3

3 Hafen, Overland Mail, 56-63, 135, 207. The history of this route, 1858-1869, will be continued under the heading of the "Central Overland Route." Magraw's resentment at the cancellation of his contract in 1856 and its subsequent award to the Mormons had a part in bringing on the "Mormon War" in 1857.
The first United States mail service over the western half of the Central Overland Route, Utah to California, was established in 1851. A three-year contract, awarded to Absalom Woodward and George Chorpenning, provided for a monthly mail service, through trips in 30 days, at an annual compensation of $14,000, from 1851 to 1854. Except in winter months, this 900-mile route ran from Sacramento through Folsom, Placerville, Strawberry and Hope Valley, in California, to Genoa and Carson Valley in Nevada. From here it followed the Humboldt River eastward almost to its source. Finally leaving this river, the route then proceeded to the northeast through southern Idaho, in the vicinity of the Goose Creek Mountains, and then led to the southeast around the north side of the Great Salt Lake. Chorpenning used pack mules and horses to transport the mails. The heavy snows in the Sierras in the winter of 1852, however, thereafter forced him to utilize a special winter route, which led from Salt Lake City over the Mormon Trail and through the Cajon Pass to Los Angeles.

In 1854 Chorpenning was again the successful bidder and received a four-year contract (1854–58) that provided for a monthly mail, with a compensation of $12,500 per year. The new contract also changed the year-round route to the Mormon Trail from Salt Lake City to San Diego. Indian difficulties and other expenses soon led Congress to increase his annual compensation to $30,000. During the period of the second contract, the mail was carried through on horseback or by packmules with fair regularity, and often in less than the scheduled time of 28 days. 4

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4 Hafen, Overland Mail, 63-70, 135, 207.
United States Troops Guarding the Overland Mail. Reproduced from an old drawing.

Courtesy, Wells Fargo Bank
A second (actually the first in point of time) inland mail route was authorized by Congress in 1847 for service from Independence, Missouri, to Santa Fe, New Mexico, by way of Bent's Fort in Colorado. By 1850 a regular monthly coach service was in operation over this line which followed the already well-established Santa Fe Trail. The mail trains on this route were made up of from one to three wagons, each drawn by four or six mules. Eight or ten well-armed guards accompanied each train to protect it from Indian attacks. There were no relay stations on the line during the early years. The fare for passengers was $1.40 and included 40 pounds of baggage and meals on the way. At night passengers slept either in the wagons or out on the ground under the stars.

In 1854 Jacob Hall secured the next four-year contract for the line. Compensation was originally set at $10,990, but damages and losses incurred as the result of Indian troubles soon induced Congress to raise the amount to $22,000 a year. Hall provided a monthly mail service, through in 25 days, in six-mule coaches. In 1858 Hall was again awarded the contract for the route. Service was now increased to a semi-monthly schedule and his pay to $39,999 a year.  

Service on the third inland route was established in 1854 by means of a contract with David Wasson. This contract provided for a monthly mail service, through in 25 days, in two-horse coaches from San Antonio, Texas, to Santa Fe, New Mexico, at the annual compensation of $16,750. Indian depredations in 1855 resulted in the increase

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5 Hafen, Overland Mail, 70-73, 135, 207.
of the compensation to $33,500 per annum, and the contract was trans­ferred to George H. Giddings in the same year. In 1858 service on this line was increased to a weekly schedule and was performed with six-mule coaches.6

The fourth inland mail route, authorized by the Postal Route Act of 1856, was the direct predecessor of much of the famous Southern Overland Route. A four-year contract, with an annual compensation of $149,800, was awarded to James E. Birch in June 1857 for a semi-monthly mail service over the 1,475-mile route from San Diego, via El Paso, to San Antonio, Texas. The contract specified that through trips by means of four- or six-mule coaches were to be made in 30 days. The company, employing 65 men and utilizing 50 coaches and 400 mules, quickly put the line into operation in 1857. The scheduled time was easily and regularly maintained, and through trips came to be made in from 22 to 26 days. The price for through passage was $200, with meals included, but passengers were few. Armed guards assisted the stages through the dangerous Indian country. When the giant Butterfield line was put in operation in September, 1858, a duplication of service occurred over the portion of the route from El Paso to Fort Yuma. Postmaster General Brown therefore discontinued the service between those two points upon the San Antonio and San Diego line in December, 1858. Service on the remaining portions--San Antonio to El Paso and from Fort Yuma to San Diego--was then increased to a weekly schedule. The new economy-minded Postmaster General Holt, however, reduced the compensation in 1859 to $120,000, and service was accordingly cut back to a semi-monthly schedule.7

6 Hafen, Overland Mail, 73-75, 135, 207.
7 Ibid, 105-108, 135, 207.
The fifth and last of the early inland mail routes was established by Postmaster-General Brown in 1858. In May of that year he entered into a nine-month contract with Jacob Hall that provided for a monthly mail from Kansas City, Missouri, via Santa Fe, to Stockton, California, with a compensation of $79,999 a year. The mail was to be carried through in 60 days by means of six-mule wagons. Operations on the line began on October 1, 1858, and the first through trip was completed in 54 days. Indian hostilities in the spring and summer of 1859, however, considerably disrupted service over this line, and Postmaster-General Holt, with the object of reducing postal expenditures, failed to renew the contract when it expired in 1859. Thus sustained by federal postal funds, the operators of these early mail lines, 1850-57, succeeded in developing the main routes and discovering the best means of travel, thereby preparing the way for the next step in the evolution of western travel—the age of the expedited overland mail, the era of the transcontinental stage coach.

The Southern (Butterfield) Overland Mail 1858-61

The demonstration by pioneer mail lines that the mail could be carried successfully across the continent, the continued Congressional deadlock over the question of a Pacific railroad, and dissatisfaction with the poor service offered by the monopolistic Pacific Steamship Company, united westerners in demanding of Congress some immediate improvement in the mail service to the Far West. The campaign of protest reached its climax in 1856, when a giant petition signed by 75,000 Californians was laid before the national legislature.

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8 Hafen, Overland Mail, 115-118, 135.
Congress responded, in part, by appropriating a total of $600,000 for building four roads in 1856-57; $50,000 for the construction of a road from Fort Ridgley, in Minnesota Territory, to the South Pass; $300,000 for a road from Fort Kearny, Nebraska by way of South Pass, to the eastern boundary of California; $200,000 for improving the road from El Paso, Texas, to Fort Yuma in Arizona; and $50,000 for a road from Fort Defiance, New Mexico, to the Colorado River near the mouth of the Mohave.*

In addition, a bill authorizing the establishment of an expedited overland mail service to San Francisco was introduced in 1856. Western proponents of the measure advocated the use of the Central Overland Route—via South Pass and Salt Lake City—from the Missouri River to San Francisco, for this purpose. But Southerners felt that this proposal would only benefit the North economically—by placing the eastern terminus of the proposed line at St. Louis, and even worse, might possibly lead to the choice of this route as the proper one for the construction of the railroad to the Pacific. The southern leaders united in their opposition to the central route, and as an alternative, advanced a second plan that called for establishment of the improved mail line over a southern route. The resulting sectional controversy over which route was to be utilized effectively blocked the passage of any measure on the subject that year.

Western pressure, however, continued unabated. A new measure was therefore introduced and passed in March, 1857. The law directed the Postmaster General to call for the delivery of the letter mail

*All of these roads but the last were constructed by the Pacific Wagon Road office of the U. S. Department of the Interior. The Fort Defiance road was built by the War Department, Jackson, Wagon Roads West, 161-256.
"from such point on the Mississippi River as the contractors may select, to San Francisco . . . for six years, at a cost not exceeding $300,000 per annum for semi-monthly, $50,000 for weekly, or $600,000 for semi-weekly, at the option of the Postmaster General." The contractors were bound to construct relay stations along the route not closer than 10 miles to each other, to carry the mail and passengers in "good four-horse coaches or spring wagons," and to provide a 25-day through service. The line was also to be put into operation within one year after the awarding of the contract.\(^9\)

The southern support necessary for the passage of the Act had been gained by deliberately failing to specify in the bill which route would be adopted. Southern congressmen, when voting for the measure, were well aware that the authority delegated by the Act to the Postmaster General of selecting the contractors in reality also gave him the final say in which route would be utilized.

Aaron V. Brown of Tennessee, Postmaster General of the United States from 1857 to 1859, was an ardent Southerner in his political views, and he did not now disappoint the expectations of the South. Nine bids were received, but not one was for the route that Brown was interested in. Unperturbed, Brown simply specified that the new route was to start from St. Louis, Missouri, and also from Memphis, Tennessee, both terminals being located on the Mississippi River, and were to converge at Little Rock, Arkansas. From that point the route was then to run through Preston and El Paso, Texas, to Fort Yuma, Arizona. From Yuma, the route was then to proceed north through California to San Francisco. Next, on the basis of the ability,

\(^9\)U. S. Statutes at Large, Vol. XI, 190, as quoted in Hafen, Overland Mail, 87-88.
qualifications and experience of the bidders, Brown awarded the six-
year, $600,000 per year contract for a semi-weekly mail over this 
road to John Butterfield, William B. Dinsmore, William G. Fargo, 
James V. P. Gardner, Marcus L. Kinyon, Alexander Holland, and 
Hamilton Spencer. These gentlemen represented the combined interests 
of four great express companies—Adams, American, National, and Wells, 
Fargo—which were backing the new company for the purpose of compet-
ing with and breaking the monopoly of the Pacific Mail Steamship 
Company.

Brown justified his choice of this unique 2,795-mile 
southern route by pointing out that this road would not be blocked 
by heavy snows in the winter, as would be the case if the central 
route had been utilized. He also argued that the southern route 
was the ideal road for immigrants to follow west and that, on the 
basis of the 1853-55 railroad surveys, a railroad to the Pacific 
could be built more economically along the southern route than over 
any other. Eastern and Western advocates of the central route were 
disappointed and enraged by Brown's decision and instantly labelled 
the new route, in derision, the "Horse-shoe" or "Ox Bow" Route, 
because of its strange shape when plotted on a map.

In truth the southern route did offer many serious obstacles 
to staging. Because of the long, arid sections over which much of 
this route passed, wells had to be sunk and reservoirs built to 
afford water for the relays of teams that were necessary. To 
further support the line, approximately 139 stations were built and 
maintained at intervals averaging about 18 miles apart across the 
Far West.
In arid New Mexico and Arizona these stations were large square enclosures with walls of adobe that, during periods of Indian hostility, were defended by four or five armed guards. Supplies of hay, grain, food, and sometimes even water, often had to be hauled long distances to sustain these outposts. The contractors, however, went about their task with great energy: 800 men were hired, and 1,000 mules and horses and 100 coaches were acquired. When the year was up all was in readiness.

Simultaneously, on September 18, 1858, two Butterfield stages began the semi-weekly run, one stage departing for the West from Tipton, Missouri (then the western terminal of the railroad from St. Louis to Kansas City) and the other bound east from San Francisco. For three weeks, 24 hours a day, stopping only briefly to exchange drivers and horses and to permit the few passengers to wolf down quick meals, the two coaches lurched across the continent. On October 10 the first west-bound stage pulled into San Francisco, having completed the trip in 23 days and 23 hours. The exhausted, solitary through-passenger reported of his experience: "Had I not just come over the route, I would be perfectly willing to go back over it."10

President Buchanan, on learning that the first east-bound stage had made the trip in 24 days, 18 hours and 35 minutes, telegraphed Butterfield: "I cordially congratulate you upon the result. It is a glorious triumph for civilization and the Union. Settlements will soon follow the course of the road, and the East and

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10 The one passenger was Waterman L. Ormsby, a special correspondent of the New York Herald. The quote is from Ray A. Billington, Westward Expansion, A History of the American Frontier (New York, 1949), 636.
"West will be bound together by a chain of living Americans which can never be broken."\textsuperscript{11}

The line was equipped at first with Concord spring wagons which were capable of carrying conveniently four passengers and from five to six hundred pounds of mail. These vehicles were soon replaced by the famous Concord coaches, which were manufactured by the Abbott-Downing Company of Concord, New Hampshire. These brilliantly decorated stages were drawn by from four to six horses or mules, and could seat from six to nine passengers inside and carry from one to ten people on the roof. The wide-set wheels kept the coach from upsetting easily and the broad iron tires helped to prevent the wheels from sinking into the soft desert sand. The body of the stage was slung on stout leather braces which absorbed some of the shocks, and leather side curtains sheltered the inside passengers from some of the weather. At the rear of the body was a projecting "boot," with leather cover, which held the mail sacks and passengers' baggage. In the event there was too much mail to be held by the boot, the surplus mail was then piled inside the coach to the discomfort of the passengers--the mail having the right of way under the contract.

Through passenger traffic was never heavy. The prospect of continuous riding day and night for 25 days was not very alluring. The crude meals were eaten at irregular hours; the coaches were cramped for room, and opportunities to wash were few. The fare was $200 and included an allowance of 40 pounds of baggage. The cost of meals was extra and ranged from 75 cents to one dollar. One traveler,

\textsuperscript{11}Quoted from Hafen, \textit{Overland Mail}, 95.
after completing the through trip, remarked that he had been "as close to hell as he ever wished to be." 12

The line, however, assisted by the great government subsidy and the development of a considerable way passenger traffic, prospered from 1858 to 1861. By 1860 the Butterfield Overland Mail was carrying more letter mail than the ocean steamers. Despite occasional depredations by the Apache and Comanche Indians, the schedule was very successfully maintained, and through trips came to be made regularly in from 21 to 23 days.

The ver success of the operation over the long southern route soon served to further strengthen the demand of Westerners for a similarly improved service over the shorter central route. The scene was now set for the dramatic and spectacular competition between the central and southern overland routes. 13

The Central Overland Route, 1858-60

Matters on the central overland route stood as follows in 1857: On the Missouri-Utah portion, the contractor, S. B. Miles, was carrying the monthly mail in four-horse coaches eight months of the year and upon pack mules the remaining four winter months for subsidy of $32,000 a year; in the California-Utah section, George Chorpenning was carrying the monthly mail on horseback or pack mules from Salt Lake City to Los Angeles, and shipping it

12 Quoted from Raymond W. Settle and Mary L. Settle, Saddles and Spurs, The Pony Express Saga (Harrisburg, Pa., 1955), 21.

13 These paragraphs have been largely drawn from Hafen, Overland Mail, 79-99, 306-312; supplemented by data from Billington, Westward Expansion, 634-363; Paxson, History of the American Frontier, 462-465; and Settle, Saddles and Spurs, 20-21. The most detailed history of this company is Roscoe P. Conkling and Margaret Conkling, The Butterfield Overland Mail Company, 1858-1869 (3 Vols., Glendale, 1946), which is already a rare work.
from that point to San Francisco by boat, under a contract with an annual compensation of $30,000 per year. The United States was thus expending a total of $62,000 a year for 60-day mail service to the Pacific over the central route. At the same time the federal government was spending a total of $749,000 per year for 25-day, semi-weekly service on the Butterfield line and 30-day, semi-monthly service on the San Antonio-San Diego route. Heavy discrimination in favor of the southern route was therefore self-evident, and California congressmen now demanded an improved mail service over the shorter and more populous central route.

Postmaster General Brown acceded to these demands in 1858 and entered into new contracts to achieve this end. John H. Hockaday was awarded a contract for the Missouri-Utah portion that provided for a weekly mail service in four-mule wagons or carriages on a 22-day schedule at a compensation of $150,000 per year. George Chorpenning received his third contract which provided for weekly mail service in coaches on a 16-day schedule over the Utah-California section at a price of $130,000. Thus, by July 1, 1858, a through overland mail along the central route from Independence, Missouri, to Placerville, California, was in operation upon a 38-day schedule for a total compensation of $320,000.

The eastern division of the through central line followed the route of the preceding monthly mail, up the Platte River and through South Pass. West of Salt Lake City, however, the line was changed to follow the original route of 1851-54. This road circled to the north of the Great Salt Lake, then followed the Humboldt River across northern Nevada, and crossed the Sierra at Carson City.
In December 1858, however, Chorpenning reduced the length of his route to 768 miles by moving his road to Egan's Trail. 14 In the spring of 1859 a new road and relay stations were built on this line which ran south of the Great Salt Lake through Schell Creek and Ruby Valley in Nevada to Carson City. These improvements also shortened the time required for trips, and schedules were regularly and successfully maintained. The mail from the East often reached Salt Lake City in 20 days, and Placerville in 32. 15

Western delight in these improved mail facilities, however, was relatively short-lived, for Postmaster General Brown died in March, 1859, and was replaced by the less liberal-minded Judge Joseph Holt of Kentucky. Holt was much more interested in reducing federal postal expenditures than in improving mail services to the West. Accordingly, in 1859, he at once reduced compensation and service on all western mail routes except one. Hockaday's schedule was placed on a semi-monthly service and his compensation cut to $130,000 a year. Chorpenning's service was similarly reduced to a semi-monthly mail and his subsidy lowered to $80,000 per year. But when Judge Holt endeavored to reduce service and the subsidy of the Butterfield line, he soon discovered that this company was protected by an air-tight six-year contract. The effect of Judge Holt's actions was thus once more to favor the southern over the central route, and to again inflame western demands for improved

14 Chorpenning made this change in route on the basis of advice received from Captain James H. Simpson, U. S. Topographical Engineer, Jackson, Wagon Roads West, 149-153; Goetzmann, Army Exploration in the American West, 399-403.

15 Hafen, Overland Mail, 109-115, 135; Settle, Saddles and Spurs, 19-20.
mail facilities for the Far West. 16

The discovery of gold at the future site of Denver, Colorado, in the summer of 1858 induced a new and powerful champion to enter the lists in favor of the central overland route in the fall of 1858. This new advocate was William H. Russell of the great Western freighting firm of Russell, Majors, and Waddell.

Russell, Alexander Majors, and William B. Waddell had each begun their individual business careers in Missouri as merchants and then ventured, at first in a small way, into the business of freighting goods to Santa Fe and carrying military supplies to United States military posts on the plains. Their great opportunity came in 1854 when the United States government adopted a new policy of awarding to one contractor the right to supply all frontier forts. Unable individually to perform this task, the three joined forces and established in 1855 the firm of Russell, Majors, and Waddell, capitalized at $60,000, to do the job. The new company secured the military contract and by this means obtained a complete monopoly of all military freighting operations on the Great Plains, and one which they successfully maintained until 1861. Assisted by the military contracts, the "big three" soon came to dominate the entire freighting business between the Mississippi River and Salt Lake City. In 1859 Horace Greeley, the great editor of the New York Tribune, estimated that this company had $2,000,000 invested in oxen, mules, and wagons. At its height the firm owned as many as 50,000 oxen and employed from 1,700 to 2,000 men in its freighting operations.

16 Hafen, Overland Mail, 135-147, 207.
In spite of these appearances of prosperity, all was not well with the financial health of the company in 1858. Russell, Majors, and Waddell had suffered losses amounting to almost $500,000 in their military freighting operations during the "Mormon War" as a result of Mormon depredations. Unfortunately for the partners, the United States had failed to reimburse the company. Thus in 1858 Russell was casting his eyes about for some opportunity to recoup their fortunes, and in the central overland route he thought he saw a favorable field. ¹⁷

The discovery of gold in Colorado would surely lead to a great rush to that area in 1859, and to handle the expected traffic he planned to establish a stage line from Leavenworth, Kansas, to Denver. The conservative Majors and Waddell, however, declined the honor. Undaunted, Russell proceeded with his plan in partnership with John S. Jones. The two men organized the Leavenworth & Pike's Peak Express Company, equipped the line with new Concord coaches, acquired mules, and prepared to erect stations along the proposed Republican River route. The first coaches departed on April 18, 1859, making the 687-mile trip to Denver in 19 days. ¹⁸ To further insure the successful financial operation of the line, Russell purchased for $50,000 on May 11, 1859, J. M. Hockaday's $130,000 contract for the semi-monthly mail service from the Missouri River

¹⁷Raymond W. Settle and Mary L. Settle, Empire on Wheels (Stanford, 1949), is an admirable study of the freighting and stagecoach activities of this company; also Settle, Saddles and Spurs, 1-15, 168-170; Hafen, Overland Mail, 146-147.

¹⁸Horace Greeley, Overland Journey (New York, 1860), describes his trip over this route, which was only utilized by Russell from April 18 to June 6, 1859.
to Salt Lake City. Thus before the new Republican River route could even be well marked, Russell, in June 1859, transferred his stock and supplies to Hockaday's Platte River road, and relay stations were erected for the first time along this old section of the central route. By August, 1859, Russell's stages were running semi-weekly on a seven-day schedule on the central route.  

In spite of the splendid service afforded by the Leavenworth & Pike's Peak Express, the company consistently lost money, largely because the Pike's Peak boom "busted" in the summer of 1859. Russell and Jones had gone heavily into debt to put the line in operation, and by the fall of 1859 owed some $525,000. In this desperate situation Russell turned to his partners, Majors and Waddell for aid. On October 28, 1859, the "big three" took over the bankrupt company under a contract that provided for the formation of a new company to carry the United States mail and to transport freight. If they had not made this move, the fall of the L.&P.P.Express might well have led to the collapse of the firm of Russell, Majors and Waddell.  

The resourceful and daring Russell, unperturbed by this narrow escape, now proceeded to develop even more grandiose plans. On November 28, 1859, he organized a new company called the Central Overland California & Pike's Peak Express Company, which absorbed the old L.&P.P.Express Company and was capitalized at $500,000. The new firm was chartered by the legislature of Kansas in February, 1860. Then, on May 11, in a move that was probably more than mere coincidence, the Postmaster General annulled George Chorpenning's  

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contract for mail service from Salt Lake City to Placerville on the
grounds of alleged failure to maintain the proper service. On
June 6, the former Chorpenning contract for a semi-monthly mail,
with a subsidy of $33,000 a year, was awarded to Russell.

Thus by June, 1860, Russell had obtained control of the
entire mail service over the central route from the Missouri River
to the Pacific Coast. The outlines of Russell's grandiose plan were
now plainly visible; he had created the Central Overland California
& Pike's Peak Express Company as a means of competing with the great
Butterfield overland mail company for the large federal overland
mail subsidy. Concurrently with these maneuvers, a bill had been
introduced in Congress on March 13, 1860, that proposed the consoli-
dation of all the various overland mail lines into one route, to be
operated by a single company. A daily overland mail was to be carried
through in 20 days, for an annual subsidy of $1,000,000 a year.21

A vital step in winning this subsidy, Russell calculated,
would be a practical demonstration that the shorter and more populous
central route was much superior to the southern road. Furthermore,
he believed that this display must be so sensational and spectacu-
lar in character that it could not fail to impress public opinion
and hence win Congress away from the southern route.

Russell made his decision on January 27, 1860; on that very
day he issued orders to establish a Pony Express from the Missouri
River to Sacramento, California, with a through time of only 10 days.

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20 Hafen, Overland Mail, 156-157, 207; Settle, Saddles and
Spurs, 25-29.

21 Ibid, Overland Mail, 195-207, reviews the different bills
introduced and summarizes the course of the debate.
The operation was neatly timed to begin on April 3, so that the dar­ing demonstration would be in full swing at the very time that Congress would be considering the bill for the overland mail. Russell was now playing for large stakes and, accordingly, he ventured much. 22

The Pony Express, 1860-61

The Pony Express was thus a means to an end. Again Russell pushed the reluctant Majors and Waddell into backing the undertaking. Preparations were at once instituted to put the line into operation. On the Utah-California section, Chorpenning had built in 1859 a number of stage relay stations located about a hundred miles apart, and the former L.&P.P. Express Company had also constructed a similar series of stage stations at intervals of about 25 or 30 miles in 1859 from the Missouri River to Salt Lake City. The Central Overland California and Pike's Peak Express Company now rapidly began to fill in the gaps by erecting additional stations between the existing ones so that a slim lifeline composed of some 150 stations located at intervals of from 10 to 15 miles soon stretched across the continent from St. Joseph, Missouri to Sacramento, California for the use of the Pony Express.

Five hundred good horses chosen for their endurance and speed, chiefly native western mustangs, were purchased. Some 60 riders, mostly wiry, light young men, selected for their stamina, horsemanship, and courage, were employed at an average wage of $50 a month, plus room and board. Each rider was to ride like the wind for 75 to 100 miles, rapidly changing horses at intervening relay stations,

until he reached a "home station." Here a new rider would seize the mailpouch and carry it on along the route. At the "home station" the relieved rider would eat and rest briefly before making his return run. Special equipment, in the form of light-weight saddles and mochila \(^23\) were adopted to help insure the utmost speed.

On April 3, 1860, as scheduled, the Pony Express began its operations with great fanfare, the first riders departing from St. Joseph and San Francisco. Over snow-clad mountains, fording rivers, through burning deserts, across rolling plains and Indian country, relays of riders rushed the first letters at breakneck speed. Ten days later, on April 13, the last of the series of relay riders thundered into the eastern and western terminals. The ten-day mail was a fact, and from 10 to 12 days had been trimmed from the time of the fastest stage coaches. \(^25\)

Newspapers of the country at once sang the praises of the Pony Express, and overnight Russell had caught the imagination of the nation. Almost obligingly, in May, 1860, the Pah Ute Indians went on the warpath in Nevada, making life extremely dangerous for the Pony Express men, but also affording a fine opportunity for many heroic rides that have lost nothing since in their retelling.

\(^{23}\) The mochila was a light leather saddle cover, with four mail containers sewn to it.

\(^{24}\) Sacramento was the actual western terminal of the Pony Express, but on the inauguration of the service, in order to gain the widest publicity possible, a special "rider" and "pony" were hired to parade through the streets of San Francisco to a river boat, which then conveyed the mail to Sacramento, where the real run began.

\(^{25}\) The fastest run ever made by the Pony Express occurred November 8-14, 1860, when the news of Lincoln's election was carried across the continent in six days from Fort Kearny, Nebraska, to Fort Churchill, Nevada, then the eastern and western terminals of telegraph lines.
The Pony Express, on its way over the Rocky Mountains, meets a pack train, and the rider is obliged to dismount to pass the heavily loaded mules on the narrow path, 1860.

From New York Illustrated News, June 2, 1860.
In spite of this achievement, Congress became embroiled in the usual sectional debate over the Overland Mail Bill and after a close vote, adjourned without passing the measure. Russell therefore continued the Pony Express in the expectation that Congress would again consider the matter when it reconvened in 1861. In this hope he was not to be disappointed, for in March, 1861, Congress passed a law that transferred the overland mail route from the southern to the central route and incorporated much that Russell had desired. (The terms will be discussed in the next section.) Russell had won a great victory, but as often happens, not quite as he had planned it.

Considered as a financial operation, the Pony Express was never a success. Even with the high price of $5.00 per half ounce for letters, receipts were never able to cover expenses. But considered from its greater objective, as the "advertiser and demonstrator of the central route," the Pony Express was eminently successful, for on July 1, 1861, the daily subsidized mail was established on the central route.\textsuperscript{26}

For 19 months, April, 1860 to October, 1861, the Pony Express ran, binding the East and the West together during the first critical months of the Civil War. On October 24, 1861, the completion of the first transcontinental telegraph brought the Pony

\textsuperscript{26}Hafen, \textit{Overland Mail}, 187.
Express to a close. As Dr. Hafen has written: "The Pony was fast, but he could not compete with lightning."\textsuperscript{27}

Central Overland Mail, 1861-1869

Having failed to pass the Overland Mail Bill in 1860, Congress again considered the subject in February, 1861. By February 8 somber war clouds menaced the nation. The Confederate Government had been formed, and Texas had seceded from the Union, thereby threatening to cut off the southern overland mail route. The Central Overland California & Pike's Peak Express Company was also in serious financial distress. The combination of these factors led Russell and William B. Dinsmore, president of the Butterfield Overland Mail Company (now controlled by Wells, Fargo & Company) to reach a private agreement on the mail question about the middle of the month. Thereafter, the Postal Route Bill enjoyed relatively smooth sailing and was passed on March 2, 1861.

The new law provided for the discontinuance of mail service on the southern route and the bodily transfer of the Overland Mail Company and the mail service to the central route, effective July 1, 1861. The letter mail was to be carried through six times a week in 20 days for eight months of the year, and in 23 days during the winter months, from the Missouri River to Placerville, California.

\textsuperscript{27}These paragraphs have been drawn from Hafen, Overland Mail, 165-191; Settle, Saddles and Spurs, and Bloss, Pony Express. Two brilliant and important contemporary accounts of the Pony Express and stage coach operations on the central route are: Richard F. Burton, City of Saints (London, 1861), in which the famous Englishman narrates in detail his experiences during the summer of 1860; and Mark Twain, Roughing It (New York, 1871), in which he recounts in humorous fashion his journey during the summer of 1861.
The contractors were further required to run a Pony Express twice a week on a 10-day schedule until the overland telegraph was completed. For these and other services, the contractors were to receive a three-year contract with a subsidy of $1,000,000 a year.

On March 16, 1861, Russell and Dinsmore signed a contract in behalf of their respective companies under which the task and receipts of carrying the mail, passengers, and express over the central route were divided between them. It was agreed that the C.O.C.&P.P. Express would operate the line from the Missouri River to Salt Lake City and receive $470,000 per year from the mail subsidy. The Overland Mail Company was to operate over the western portion of the line, from Salt Lake City to Placerville. Each company was to pay half of the costs of transporting the "heavy mail" by sea.

Receipts and expenses were similarly divided, but the contract also gave the Overland Company the exclusive right to contract with Wells, Fargo & Company to handle all express going east from any point west of Salt Lake City and all business originating in the east and going west of Salt Lake City, thus protecting Wells, Fargo's monopoly of the express business on the Pacific Coast.

Having succeeded to this extent in achieving his plans, Russell resigned as president of the C.O.C.&P.P. Express in April, 1861, and the company was reorganized. In spite of these changes, however, the company continued to sink into a financial morass, and its employees soon changed the name to read "Clean Out of Cash & Poor Pay." In the fall of 1861, as a result of the combined losses from freighting, staging, and the Pony Express, the great firm of
Russell, Majors, and Waddell passed into bankruptcy, never to rise again. In March, 1862, Benjamin Holladay purchased the C.O.C.&P.P. Express at public sale for $100,000, the company then already being indebted to him for $208,000 that had previously been advanced to permit it to continue operations.

The picturesque Ben Holladay was a rough plainsman, ignorant of letters, but nonetheless possessed of a shrewd cunning, great energy, and considerable organizing ability. He had made his money in the western freighting business. Now he completely reorganized the C.O.C.&P.P. Express and personally saw to it that its business was efficiently conducted. As a result of these changes the line was soon operating on a paying basis.

In 1864 the overland mail contract was again awarded to Dinsmore and Holladay. The annual subsidy was set at $910,000 a year for four years. Of this total Holladay received $354,000, Dinsmore $385,000, and the remaining $160,000 was utilized to pay for the transportation of paper and document mail to the Pacific Coast by sea. Under the contract daily trips were to be made through in 16 days on the overland route during eight months of the year and in 20 days in the remaining four.

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29 Hafen, Op. cit., 227-228; 295-299. J. V. Frederick, Ben Holladay, The Stage-coach King (Glendale, 1940), is an excellent biography of this colorful figure.

A typical Concord stage used on the Central Overland Mail Route. The United States Express, probably taken near Fort Wallace, Kansas, in 1867. Note the negro troops guarding the stage.
In addition to the central route, Holladay also operated stage and mail lines into Colorado, Idaho, and Montana. Rival lines were crushed or bought out; by 1866 Holladay controlled nearly 5,000 miles of western stage lines. Moreover, he also owned and operated steamship lines to Oregon, Panama, Japan, and China. Accumulating a fortune, he moved East to live in elegant mansions in New York and Washington.31

But now, in 1866, the days of transcontinental staging were drawing to a close. Construction on the first transcontinental railroad to the Pacific was making substantial progress for the first time, and Holladay saw the handwriting on the wall. In October, 1866, he disposed of his entire overland mail holdings to Wells, Fargo & Company at a good price. By this move the Holladay Overland Mail and Express Company, the Old Overland Mail Company, the Pioneer Stage Company, and Wells, Fargo & Company were merged into one great firm called "Wells Fargo and Company," with capitalization of $10,000,000. The consolidation gave Wells Fargo an exclusive monopoly of all express and of almost all stage routes between the Missouri River and the Pacific Coast, including numerous branch lines in Nevada, Montana, Idaho, and Colorado. In buying out Holladay, Wells Fargo had calculated on six more years of overland staging before the first transcontinental railroad could be completed. In this expectation, however, they were rudely disappointed, for just three years later, on May 10, 1869, the first railroad to the Pacific was finished. The era of the overland stage was gone forever.32

31 Hafen, Overland Mail, 296.
32 Ibid., 319, 326.
The First Transcontinental Telegraph, 1860-61

The first telegraph companies were organized in California in 1851, and, as early as 1854, Hiram Sibley, president of the newly formed Western Union Telegraph Company, had proposed the construction of a telegraph line overland to the Pacific. Lack of capital, however, prevented his plan from materializing. By 1860 the situation was as follows: the Pacific & Atlantic Telegraph Company in California had completed a line from San Francisco to Los Angeles and had hopes of continuing the wire across the continent along the southern overland mail route; the Placerville & St. Joseph Overland Telegraph Company, chartered by Frederick A. Bee in 1853 for the purpose of building east along the central overland mail route had succeeded by the fall of 1860 in constructing a line from California to Fort Churchill in western Nevada. Far to the east, the Missouri & Western Telegraph Company, under its president Charles M. Stebbins, had erected a line from the Missouri River as far west as Fort Kearny in Nebraska. Between this terminal and Fort Churchill, the Pony Express carried telegrams in 1860.

In June 1860 Congress passed legislation that provided the crucial subsidy necessary to induce private enterprise to undertake the construction of the first transcontinental telegraph. The Act directed the Secretary of the Treasury to advertise for bids on this construction, which was to be completed within two years of July 31, 1860. A guaranteed government subsidy of $40,000 a year, in return for federal use of the line, was granted for a ten-year period. The contractor was also to receive a quarter section of land every 15 miles and the right to cut trees for poles on public lands. No route
for the line was specified in the law, probably omitted in a deliberate effort to avoid usual sectional controversy on this question.

In October, 1860 Hiram Sibley was awarded the contract. Both the central and southern overland mail routes were examined as to suitability, and the central was chosen as being the most feasible. In order to gain the necessary capital, to eliminate possible economic rivalry, and to speed the construction by building simultaneously from the East and the West, Sibley evolved the plan of combining the interests of the other telegraph companies into two new companies. Accordingly, late in 1860, the Placerville & St. Joseph Overland Telegraph Company, the Northern Telegraph Company, and the Pacific & Atlanta Telegraph Company were consolidated into the California State Telegraph Company, which was formed for the purpose of building from Fort Churchill, Nevada, east to Salt Lake City. To the east, in June, 1861, Sibley chartered the Pacific Telegraph Company under the laws of Nebraska for the purpose of building from Fort Kearny west to Salt Lake City. Among the incorporators of the new eastern concern were Sibley, Stebbins, Bee, Jeptha H. Wade of the Erie & Michigan, Dr. Norvin Green of Southwestern Telegraph, Benjamin F. Ficklin (late of the Pony Express), and Edward Creighton, an experienced line constructor. Wade was elected president, Sibley vice-president, and Creighton general agent and superintendent of construction.

Under an agreement between the two companies, the Pacific Telegraph Company was to receive 60% of the federal subsidy and the California State Telegraph Company the remaining 40%.
further insure speed in construction, it was agreed that the company first reaching Salt Lake City should retain full payment (the rate was then fixed at $3 for ten words) for messages between the Missouri River and San Francisco until the line was completed and the loser was also to pay the winner $50 a day until the job was done.

Large construction crews had to be maintained on both ends of the line as well as teams of pole cutters in the mountains. Provisions, tools, wires, and insulators had to be freighted out in wagon trains from Sacramento in the West and Omaha in the East to the ends of the ever-advancing line. Equipment for the western end also had to be shipped first from the Atlantic Coast by sea around Cape Horn to San Francisco.

The first pole in the West was set under the direction of James Gamble at Fort Churchill on May 27, 1861. By late in September, the end of the wire had been carried eastward 250 miles to Ruby Valley, Nevada. Creighton erected his first pole at Fort Kearny, Nebraska, on July 4, 1861 and by early October had carried it 533 miles from his starting point. Creighton's crew were the first to reach Salt Lake City, pulling into town on October 20, and just four days later Gamble's men arrived from the West.

The wires were thus joined on October 24, 1861, and the job was done. In a span of four months the continent had been bridged by means of a slender wire and it was now possible to flash a message in a few seconds over the telegraph from San Francisco 3,595 miles to New York. The transcontinental communication system to the Far West had thus been perfected.

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1Robert L. Thompson, Wiring a Continent (Princeton, 1947), is the standard history of the transcontinental telegraph. See also: Hafen, Overland Mail, 185, 187; Settle, Saddles and Spurs, 191-196; Bloss, Pony Express, 133-136.
The Pony Express saluting the first Transcontinental Telegraph, 1861. From a contemporary newspaper sketch. 

Courtesy, Wells Fargo Bank
The Iron Horse Goes West

The first two railroads in the United States were placed in operation in 1830. Just two years later, with less than 200 miles of track built in the entire country, the first visionary call for a railroad from the Atlantic to the Pacific appeared in the Emigrant, an Ann Arbor newspaper. Needless to say, twenty years were to elapse before the project could even be considered seriously.

By 1850 the railroad building fever, in effective form, reached the Trans-Mississippi West. States and territories optimistically chartered proposed railroads by the dozen; and hamlets, villages, counties, and cities all joined enthusiastically in the movement to legislate these worthy projects financial aid. They soon discovered, however, that it was much easier to legislate a railroad into existence than to construct one.

The basic difficulty was the lack of capital. Surplus capital was practically nonexistent in the West, and the success of any project therefore depended upon the ability of the promoters to interest eastern capital. This was a difficult feat to accomplish, particularly in view of the fact that the total population of the country from the Mississippi River to the Pacific Coast in 1850 did not much exceed 1,400,000 people, and such a small number spread so thinly over two-thirds of the continent did not offer a very fertile field for successful railroad operations. Unskilled labor for construction was also scarce in the West. Positions requiring skilled technicians and men of managerial ability were even more difficult to fill, as the supply was dependent entirely upon men trained in this field in eastern railroad operations. The cost of luring such
men west was high. Iron for track and railroad equipment was also manufactured only in the east, and the cost of transporting this material west by water and wagon was very expensive. Not until 1854 did the first railroad reach the east bank of the Mississippi. Lack of capital, coupled with high construction costs, therefore made railroad building in the west a difficult proposition.

In spite of these obstacles, construction got under way, and on December 23, 1852, the Pacific Railroad of Missouri triumphantly opened the first line west of the Mississippi, a five-mile road running from St. Louis to Cheltenham. Construction continued apace until 1857, when the house of cards collapsed in the great nation-wide financial panic of that year. Serious railroad construction was not resumed again in the West until after the Civil War. By 1860, after 10 years of agitation and effort, the railroad picture in the Trans-Mississippi West stood as follows: Missouri had only 750 miles of railroad, Texas had about 300 miles, Iowa had 375 miles, Arkansas about 100 miles, and California had a single line, 22 miles in length. Out of the 30,626 miles of railroad in the United States in 1860 fewer than 1,600 miles were located west of the Mississippi River. ¹

By 1845 agitation for the construction of a transcontinental railroad began to reach the halls of Congress. In that year Asa Whitney, a wealthy New York merchant and China trader, presented a memorial to Congress in which he suggested that the government grant a 60-mile-wide strip between Lake Michigan and the mouth of the Columbia River in Oregon to any company willing to risk the construction of such a railroad. He also estimated that the cost would be $65,000,000. Fortunately for Whitney, Congress took no action on his proposal.

Undaunted by this rebuff, he launched a ten-year campaign of countless lectures, articles, and the further refinement of his original plan, in an effort to convince the general public and Congress that a Pacific railroad was entirely feasible.

The acquisition of Oregon and California, 1846-48, together with the discovery of gold in the latter, and the resulting rush of people to the Pacific Coast, 1849-50, lent more weight and urgency to Whitney's words. Leading statesmen of the nation—such as Thomas H. Benton, John C. Calhoun, Jefferson Davis, Stephen A. Douglas, William H. Seward, and others—now listened with interest and soon declared themselves in favor of building a Pacific railroad. But this harmony was soon disrupted over the question of which route should be followed.

It was generally believed at the time that one railroad built across that vast uninhabited "American Desert" would suffice for all time; whichever section, whether North or South, secured the eastern terminus of the line, would automatically gain a perpetual economic advantage over the other. Thus, although public
opinion generally agreed that a railroad to the Pacific should be built, the issue became deadlocked by sectional dispute in the halls of Congress.

In an effort to cut this Gordian Knot, Congress, in 1853, appropriated funds to enable the Army Engineers to ascertain the most practicable and economical route for a railroad from the Mississippi River to the Pacific Ocean. Perhaps a knowledge of the facts revealed by this exploration would resolve the route question without further discord. Between 1853 and 1855 the Army Engineers surveyed a total of five routes to the Pacific, but unfortunately for Congress, found four of these to be entirely feasible. (Each of these four routes was later generally followed by a great transcontinental railroad.) Proof that two Northern and two Southern route possibilities existed therefore merely flamed the fires of sectional debate and resolved nothing.

In 1856 and again in 1860, both the Democratic and Republican parties included a Pacific Railroad plank in their national platforms. But no Federal action on the question was possible until 1861, when the Southern States withdrew from the Union.  

Building the First Transcontinental Railroad  

While Congressmen debated the Pacific Railroad issue, a handful of Californians acted. Theodore D. Judah, a young California

2Detailed discussions of the early movement for a Pacific railroad will be found in: Hubert H. Bancroft, History of California (San Francisco, 1890), VII (XXIV of Works), 497-527; Galloway, The First Transcontinental Railroad, 27-51; and Trottman, History of the Union Pacific, 5-7.

3The story of the construction of the Central Pacific and Union Pacific has been treated in detail in the National Survey of Historic Sites and Buildings Special Report: Promontory Summit, Utah (Golden Spike National Historic Site) (National Park Service, 1960).
railroad engineer, had become obsessed with the idea of building a transcontinental railroad. Like Whitney before him, Judah lobbied with politicians, merchants, and financiers, both in Washington and California. In the summer of 1860 he took to the field in an effort to locate a line through the formidable Sierra Nevada. Armed with preliminary data indicating the feasibility of the Donner Pass route, Judah set out to enlist the necessary capital. San Francisco gave him a cold reception, and in despair he turned to Sacramento.

Here, in the capitol city of California, he finally succeeded in interesting four merchants of modest fortunes--Leland Standford, Collis P. Huntington, Mark Hopkins, and Charles Crocker--in the project. On June 28, 1861, these men incorporated the Central Pacific Railroad Company of California under the laws of that state with a capital stock of $8,500,000. When the stock was offered on the market, however, only a few shares were purchased by the public, and the 10% cash subscriptions required by law were barely met. These funds were advanced to Judah, now chief engineer of the new company, to continue his surveys in the mountains.

In October, 1861 Judah again set out for Washington, where in conjunction with a group of eastern promoters who hoped to build west from the Missouri River, he worked tirelessly to secure legislation to assist the Pacific Railroad. The withdrawal of the Southern states had eliminated Southern routes from consideration, and Congress now had little difficulty in passing an acceptable bill. President Lincoln signed this bill into law on July 1, 1862.3

3Galloway, The First Transcontinental Railroad, 52-94; George T. Clark, Leland Stanford (Stanford, 1931), 167-184; Bancroft; History of California, VII, 532-545; Riegel, Story of the Western Railroads, 87-88.
Snow Plow of the Central Pacific at Cisco, California, 1867, in the Sierra.

Courtesy, Southern Pacific Railroad.
The Act of 1862 threw the support of the United States Government behind the transcontinental railroad project. The Central Pacific, chartered by California to build from Sacramento east to the state line, was to construct the western portion of the Pacific railroad. As the eastern portion lay entirely across land subject to Federal jurisdiction, the Act chartered the Union Pacific Railroad Company for the purpose of building westward from the 100th meridian (Congress fixed the latitude and President Lincoln named Omaha as the terminus) to the California line. To forestall local jealousies, four branches were authorized to be built east of the 100th meridian radiating out to Kansas City, St. Joseph, Sioux City, and Omaha.

The federal aid took the form of land grants and subsidies. The roads were to have a right-of-way through the public domain as well as the grounds necessary for stations and shops. They were also to receive ten alternate sections of public land for every mile of track built. Five out of every ten sections were to be located on each side of the track and amounted to one half of the land in a belt 20 miles wide. But the most important clause provided that the companies were to receive 6½ 30-year United States bonds for each mile of track completed, which were to constitute a first mortgage on the railroad. The bond subsidy was fixed at $16,000 a mile in level country, $32,000 a mile in the foothills, and $48,000 a mile in the mountains. This latter rate was limited to a total of 150 miles for each company. Land patents and bonds were to be issued by the United States to the respective companies as each
consecutive 40 mile section of road was completed to the satisfaction of the government. 4

The objectives and motives of the Federal government in backing the Pacific Railroad have been stated by Bancroft as follows:

First, it was a political necessity, partly to prevent the threatened withdrawal from the Union of the Pacific states. Second, it was a military necessity, one needed to provide against invasion by a foreign power. . .
Third, it would put an end to Indian wars. Fourth, it would furnish cheaper and quicker means of transportation for mails and government supplies. Fifth, it would aid to develop the vast and then almost unpeopled region between the Missouri River and the Pacific Ocean, a region covering more than one-half of the area of the United States. 5

The Act of 1862 limited the capital stock of the Union Pacific to $100,000,000 and required that subscribers pay par value for their stock in cash. When $2,000,000 of the total had been subscribed to and 10% of this amount collected in cash, the permanent officers of the company could be elected.

The books of the Union Pacific were opened for subscription in September, 1862. But in spite of nation-wide publicity and Federal endorsement of the project, it was not until September, 1863 that 123 individuals could be found who would subscribe to and pay their quota for the minimum stock requirements. This was not until October, 1863 that the Union Pacific was finally able to complete its organization.

The permanent officers elected were: Major General John A. Dix, president; Thomas C. Durant, vice president; Henry V. Poor, secretary; and John J. Cisco, treasurer. General Dix never took office and thus


5 Bancroft, History of California, VII, 532; also see Trottman, History of the Union Pacific, 3-4, 8-9.
Vice President Durant actually guided the affairs of the Union Pacific until 1869.6

The Central Pacific broke ground at Sacramento on January 8, 1863, and the Union Pacific at Omaha on December 2, 1863. Neither road made much progress. The Civil War sent the price of materials soaring and made labor extremely scarce. Capital also could not be enlisted for a railroad whose first dividends obviously lay far in the future, particularly when industry was booming from the war-time prosperity. In California the Central Pacific also found itself bitterly opposed by a powerful alliance of overland stage and express companies, Pacific steamship lines, and telegraph companies, which fought with every weapon at its command to block the railroad's progress. Leland Stanford, as a Republican war governor of California, 1861-62, managed however, to bring some state financial aid to his company.

With this, and by borrowing on their personal security, the four associates succeeded by February 1864 in pushing their rails to a point 18 miles east of Sacramento; but even this was still not far enough to qualify for any Federal aid under the terms of the Act of 1862. The Union Pacific, after exhausting its funds in surveying and grading, was not able to lay its first rail until the spring of 1865. The railroad builders, facing ruin before even getting the project fairly launched, thus again turned to Congress with a request for more Federal help. The Act of 1864, signed by President Lincoln on July 2, was the result.

6Trottman, History of the Union Pacific, 16-18; Galloway, First Transcontinental Railroad, 204-205; Riegel, Story of the Western Railroads, 72-73.
Railhead of the Central Pacific, 1868, near the Humboldt desert of Nevada. Note the telegraph line also under construction.

Courtesy, Southern Pacific Railroad
This act doubled the resources made available by the Act of 1862. The companies were now to receive 20 sections of vacant land per mile - ten alternate sections on each side of the track. But the crucial improvement was that the government now relinquished its first lien on the railroad by authorizing the companies, as they received government subsidies, to issue equal amounts of their own 6% 30-year bonds. The company bonds were now to constitute a first mortgage on the road; the United States bonds henceforth became a second mortgage. United States land patents and subsidy bonds were also to be issued to the companies as each 20 miles of road was completed, instead of 40 miles as had been previously required. Finally, the Act of 1864 also permitted the Central Pacific to build 150 miles east of the California-Nevada boundary unless first it met and united with the Union Pacific.

The Act of 1864, as Bancroft pointed out, made the United States "virtually an endorser of the company's bonds for the full amount of its subsidy," and now both the Union Pacific and Central Pacific could draw upon double the amount of subsidy granted for each mile of completed road. "The financial problem has been solved," said Stanford in July, 1865, "and the result is abundant financial means to press forward the work to its utmost development."  

To abundant finances, the end of the Civil War now added an ample supply of labor and materials. The two companies marshalled their forces in 1865 to do a ten-year job in less than four.

7Bancroft, History of California VII, 565. Under the Act of 1864 the Union Pacific received a par value total of $27,236,512 in U.S. subsidy bonds, or 43% of the total money raised, and 11,309,844 acres in public land grants. The Central (West) Pacific received $26,019,560 par value in U.S. bonds and 9,100,000 acres in land grants; see Galloway, First Transcontinental Railroad, 110, 116, 216, 227.
The two railroads dealt with tremendous logistic problems. At great expense the Central Pacific had to ship by sea all equipment, tools, rolling stock, rails, and bolts from the Atlantic Coast to San Francisco. The Union Pacific, until the completion of the Chicago & Northwestern to Council Bluffs in November 1867, drew its entire stock of materials and supplies from the seasonal operations of the Missouri River steamboats. All materials, plus supplies for the great armies of workers and animals, then had to be forwarded by trains from the terminals out to the end of the track, a transportation requirement that grew ever heavier with each mile that the rails advanced.

With the end of the Civil War thousands of Union War veterans, mostly Irish immigrants, flocked to Omaha to enlist in the Union Pacific's grading and track gangs, until, at the time of maximum effort, more than 12,000 men were employed on this work. A special feature of the Union Pacific was the "hell on wheels" camps that accompanied the end of the rails as they advanced to the west. At or near the end of the track was located a base camp, with construction headquarters, tents for housing the army of workers, and acres of materials and supplies to support the work at the front. As the rails advanced from 100 to 200 miles, the base camp then moved forward to the new location. Adjacent to each such work camp a tent city would also spring up overnight with a population comprised of gamblers, whiskey peddlers, prostitutes, and criminals of every variety. Together they relieved young Irishmen of most of their wages and provided them with an adequate incentive to return to their backbreaking toil.

The Central Pacific, in distant California, was not able to enjoy the blessing of this formidable Irish labor pool.
Secret Town Trestle (just east of Gold Run, California) in the Sierra, being filled in by dirt in 1877. This trestle was built by the Central Pacific in 1866. Note the Chinese laborers and one-horse dump carts.

Courtesy, Southern Pacific Railroad.
also failed to tempt men who could earn much more at the mines and, with luck, might even make a fortune. Less than 500 men could be obtained for work on the railroad in 1864. As an experiment, therefore, 2,000 Chinese coolies were then employed. They turned out to be excellent workers, and soon the "Big Four" were sending ships to China for recruits, until an army of some 12,000 Chinese were employed on the line in 1868-69. Moreover, the docile Chinamen did not drink, and gambled only among themselves. Thus the Central Pacific failed to give birth to moving centers of drink, murder, and sex.

Although the Central Pacific laid its first rail over a year before the Union Pacific, it encountered its toughest work, the crossing of the mighty Sierra Nevada, almost immediately. On June 6, 1864, the rails reached Newcastle, 31 miles from Sacramento, and here the heavy work began. Under the direction of Chief Engineer Samuel S. Montagne (Judah had died in 1863), the Central Pacific labored for the next four years in an effort to surmount the enormous engineering problems presented by these mountains. Deep fills, great rock cuts, high trestles, snaking grades, and 15 tunnels at elevations between 6,600 and 7,000 feet and totally 6,213 feet in length, were constructed by means of human and animal power alone. The great snow fall and severe cold made necessary the erection of 37 miles of wooden snowsheds and galleries at a cost of more than $2,000,000 so that operations could be continued during the winter months.

In November, 1866, 94 miles of the line were opened, from Sacramento to Cisco, and here the end of the track remained until August 1867, while thousands of coolies blasted and hand-drilled out the great
1,659 foot Summit Tunnel. While this work was in progress, a wagon road was thrown over the summit, and locomotives, cars, materials, and supplies were freighted across in wagons to the east slopes where the other crews worked at grading and laying track to the east. The tunnel was completed about August, 1867, and the gap between the ends of the track was quickly closed. In June, 1868 the track reached Reno, Nevada, 154 miles from Sacramento. The worst of the job was over; ahead lay the Nevada desert and conditions favorable for rapid progress. In happy anticipation of this great event, Huntington had induced Congress, when passing the Act of 1866, to cancel the previous restrictions and to authorize the Central Pacific to build eastward indefinitely until its lines should meet and connect with those of the Union Pacific. 8

The Union Pacific, in the meantime, had not been idle. From Omaha up the Platte Valley to Wyoming's Black Hills, the Union Pacific had easy going, for level land presented few engineering problems. Thus while the Central Pacific struggled in the Sierra, the grade and track of the Union Pacific advanced westward steadily and smoothly. But in its progress the Union Pacific was to meet an obstacle that never troubled the Central Pacific - the hostility of the powerful Plains Indians. As the rails invaded their hunting grounds, redmen soon understood the iron horse meant an end to their way of life. War parties swept down on the surveyors, the graders, and tracklayers, then vanished before pursuit could be organized. The frontier was stripped of troops in order to place a large force on the line of the Union Pacific. Federal

8 Bancroft, History of California, VII, 566-574; Galloway, The First Transcontinental Railway, 118-170; Riegel, The Story of the Western Railroads, 87-91; Clark, Leland Stanford, 213-14, 223. Grenville M. Dodge, How We Built the Union Pacific Railway, and Other Railway Papers and Addresses (1922), 13-15; Trottman, History of the Union Pacific, 55-57.
The Devil's Gate Bridge, 1869, under construction by the Union Pacific, Summit County, Utah.

Courtesy, The National Archives
soldiers guarded the construction workers and rode with surveyors. Graders and tracklayers worked next to stacked arms, and had been ordered to fight - not run, when attacked.

In spite of all obstacles, the Union Pacific got into stride, laying 40 miles of track in 1865. In 1866, under the guidance of General Grenville M. Dodge, the new Chief Engineer, 265 miles were built and in 1867, 245 miles.

The Union Pacific followed the old Oregon trail and Central Overland Mail route up Nebraska's Platte Valley. But it did not cross the continental divide, like the old route, at the famous South Pass. In 1865, while still in uniform and campaigning against hostile Indians, General Dodge had accidentally discovered a practicable pass across the Wyoming Black Hills. Through Wyoming, therefore, the Union Pacific kept to the south of the Platte and the Sweetwater Rivers, thereby considerably shortening its route.

The emergence of the Central Pacific from the Sierra was the signal that triggered the great race between the two railroads. Each company drove its crews and strained its resources to the limit in an effort to cover the most ground before the inevitable junction took place. Every additional mile of track constructed meant not only attendant Federal subsidies and land grants, but might also give the company first reaching Salt Lake City and Ogden control of the entire traffic of the Great Basin area, the only populated region for hundreds of miles. While the nation watched, first five, then eight, and finally ten miles of track were laid in a day.

In the winter of 1868-69 the Union Pacific moved into the rugged Wasatch Mountains, where on the summit 8,235 feet above sea level,
and in heavy snows, it experienced on a lesser scale something of the
ordeal that the Central Pacific had endured in the Sierra. Here three
short tunnels were driven through granite at an extra cost of $10,000,000
in an effort to win the race to Utah. In 1868-69 the Central Pacific
completed 501 miles of track, but the Union Pacific won the race to
Ogden by building 546 miles.

Indeed, for a brief time, due to the loose terms of the Act
of 1866, it appeared that the two lines would never meet. When rival
grading crews met, they bypassed each other and layed out parallel lines
separated by only a few feet. Compromise, however, was finally effected
in Washington and it was agreed that the two lines would join at
Promontory, Utah, a short distance west of Ogden.9 There on May 10,
1869, before a crowd of some 500 workers and officials, the "last spike"
was driven. Leland Stanford and Thomas C. Durant telegraphed the nation:
"The last rail is laid, the last spike driven, the Pacific railroad is
completed. Point of junction, 1086 miles west of the Missouri River and
690 miles east of Sacramento."10 Thus was successfully completed "the
greatest engineering and construction feat of the nineteenth century."11
The East and the West were bound together by iron rails, and an effective
transportation to the Far West had been perfected. It was now possible
(under special conditions) for a person to ride the iron horse from New
York City to San Francisco in the incredible time of 81 hours.12

9Galloway, The First Transcontinental Railway, 231-303; Trottman,
History of the Union Pacific, 57-64; Dodge, How We Built the Union Pacifie,
23-27, 45; J. R. Perkins, Trails, Rails and War: The Life of General G. M.
Dodge (Indianapolis, 1929), 220-229.

10Quoted in Perkins, Trails, Rails, and War, 241.
12Bancroft, History of California, VII, 592. A "lightning"
Express performed this feat in June, 1876.
The Old Meets the New, April, 1869. A special train carrying Leland Stanford, president of the Central Pacific, to the “last spike” ceremony, stopped near Promontory Summit, Utah, to be photographed with a covered wagon supply train.

Courtesy, Southern Pacific Railroad.
The newly completed Union Pacific, in 1870, stretched 1,032 miles from Omaha to Ogden and was capitalized at $114,033,728. The road was destined for the next ten years to play a most vital role in the rapid development of the West. The traffic of Nebraska, Wyoming, Utah, Montana, Idaho, Nevada, Oregon, Washington, and to some extent Colorado, was entirely dependent upon the Union Pacific. Thus, except for that portion of the California, Nevada, and Utah trade controlled by the Central Pacific, the Union Pacific held a virtual monopoly of the western carrying trade. Moreover, from 1870 to 1883, the Union Pacific, in conjunction with the Central Pacific, enjoyed a complete monopoly of all overland transcontinental traffic, their only competition being the ocean steamship lines plying between the Atlantic and the Pacific. Coal, gold, lead, and silver mines expanded rapidly and as a direct result of the introduction of cheap and rapid transportation. Thousands of beef cattle were now shipped east, and a considerable trade with the Orient was also developed. But perhaps the most dramatic evidence of the effect of the railroad was to be found in the combined population figures for Nebraska, Colorado, Wyoming, and Utah. The population in this area increased from 72,236 in 1860 to 270,432 in 1870, and 830,968 by 1880. The government directors of the Union Pacific thus did not exaggerate when they reported in 1878: "The 'perfect waste'... teems with farms and villages and herds of cattle and flocks of sheep, and embraces mineral wealth, developed and undeveloped, beyond comprehension and almost too great for human belief." The Union Pacific had truly become the road to a rich and expanding empire.

Figures and quotation from Trottman, History of the Union Pacific, 102-103, 116.
On May 10, 1869, Chief Engineers of the Central Pacific and Union Pacific shook hands as locomotives touched pilots over the last spike in the first transcontinental railroad.

Courtesy, Utah State Historical Society.
In 1873 the company passed under the domination of that human shark, speculator, and manipulator par excellante, Jay Gould - a man already famous as the wrecker of the Erie railroad. Gould acquired his control of the Union Pacific by buying a large amount of stock at depressed prices during the Panic of 1873. His policy was to place the railroad at once upon a dividend paying basis, regardless of the long-range economic effects on the line, thereby artificially jacking up the prices of stock. He then planned to sell out at the high prices before the company collapsed. He was aided in his plot by two factors. First, there was a tremendous increase in traffic as a result of the rapid growth of the West; and second, the railroad's monopoly of this traffic enabled Gould to fix the rates as high as the traffic would bear. He was thus able to increase the annual net earnings of the company from $2,776,000 in 1870 to $6,451,000 in 1875. Gould also forwarded his plan by choosing to make no provision to retire the great bonded debt that would become due to the United States in the 1890's. Thus between 1875, when the first dividend was paid, and 1884, more than $28,650,000 was paid out by the company in dividends, while at the same time the unpaid interest on the United States bonds amounted to more than $15,768,000.²

But Gould was a man of unlimited imagination in his chosen field, and he knew that there was more than one way to skin a cat--and more than one cat to be skinned! The only possible competition of the Union Pacific was the Kansas Pacific Railroad. This latter road was a heavily over-capitalized and poorly built line that had been completed

²Trottman, History of the Union Pacific, 101, 103, 106, 107, 131; Riegel, The Story of the Western Railroads, 160-162.
from Kansas City to Denver about 1870 and connected on the Union Pacific main line at Cheyenne. But any possible competition from the Kansas Pacific was severely limited by the fact that this road was entirely dependent on the Union Pacific for its western outlet. Gould, sensing the splendid possibilities of the situation, drove the Kansas Pacific to the verge of bankruptcy by the use of discriminatory rates and rebates on the Union Pacific. When the value of Kansas Pacific stock had fallen to only a few cents on a dollar, Gould, in 1878-79, quietly disposed of the dividend-paying Union Pacific stock at the high market prices and acquired control of the Kansas Pacific by buying up its depreciated stock for almost a song. Gould now blandly offered the Union Pacific the opportunity of uniting the two roads by an exchange of the worthless Kansas City stock at par value for the valuable Union Pacific stock. When the directors of the Union Pacific inexplicably declined this generous offer, Gould then politely informed them that the Kansas Pacific was planning to extend its line from Denver through to Ogden, thereby giving Gould a through line from the Missouri River to the eastern terminus of the Central Pacific. A deal with Huntington of the Central Pacific might well give Gould a line to the Pacific Coast and lead to the closing of that route to the Union Pacific. The prospect of a direct competing line, and foreseeing the ruthless and ruinous rate wars that would certainly follow under Gould's guidance, the directors of the Union Pacific quickly came to their senses and completely capitulated to Gould's terms. The two roads were united and all competition eliminated, but the heavy debts of the Kansas Pacific proved to be an important factor that drove the mighty Union Pacific to the verge of bankruptcy in the depression of 1884.
End of Union Pacific Track, 1867, near Archer, Wyoming.

Courtesy, Union Pacific Railroad
As for Gould, now once again armed with valuable Union Pacific stock, he foresaw the increased competition that would soon result as other transcontinental railroads were completed, and also the coming financial difficulties that would engulf the Union Pacific as a result of his dividend-paying policies. Thus in 1883, just before the bottom dropped out of the market, Gould unloaded his stock on the unsuspecting public at the high prevailing prices and severed his connection with the Union Pacific. Pocketing his millions, Gould next turned his attention to the railroads of the southwest, where we again shall have occasion to mention the gentleman.

In 1884 the Union Pacific barely escaped from a second disaster. From 1869 to 1883 the Union Pacific and Central Pacific had operated as a team in protecting their monopoly of the transcontinental traffic. But by 1883, Huntington of the Central Pacific had nearly succeeded in building his own transcontinental line, the Southern Pacific, to the East. After the completion of the Southern Pacific, Huntington was just the man to close the Central Pacific, by means of high rates, to the through traffic of the Union Pacific and thereby divert the transcontinental traffic to the Southern Pacific. The western end of the Union Pacific would thus be kept dangling in space. The Union Pacific escaped this fate, and thus the control of the Central Pacific, by acquiring the Oregon Short Line Railroad in 1884. This line, running from Ogden to Portland, Oregon, gave the Union Pacific its own outlet on the Pacific, and enabled the Union Pacific to survive the bitter railroad competition.
of the 1884-1893 period. By 1893 the Union Pacific system controlled almost 8,000 miles of track.  

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Union Pacific Construction Train and Work Crew, 1868.

Courtesy, Union Pacific Railroad
The Atchison and Topeka railroad was incorporated by the promoter and speculator Cyrus K. Holliday in 1859, under the laws of Kansas. He was unable to organize the company, however, until October, 1860, because of the inability to raise the minimum $5,000 required for that purpose by the charter. The outbreak of the Civil War and the continued lack of capital then kept the railroad a paper project until 1869.

In this interval, however, Holliday labored valiantly to secure federal assistance for his plan. As a result, in March, 1863, Congress granted the State of Kansas every alternate section of land for ten sections in width on each side of a proposed railroad that was to be built from Atchison via Topeka to the western line of the state. The act specified that the state was to issue land patents to the company as each twenty-mile section was completed, and that the railroad must be finished and in operation, from Atchison to the Colorado-Kansas border by March 3, 1873.¹

In view of this hopeful development, the name "Santa Fe" was added to the title of the company in November, 1863. The Kansas legislature accepted the Federal grant in February, 1864. First surveys for the line were started in November, 1865, and completed to Emporia early in 1866. Still unable to raise the money necessary to start construction, Holliday again turned to Congress for additional assistance. In July, 1868, Congress granted the Santa Fe railroad the right to purchase 340,000 acres of choice land located just west of Topeka, in the

¹Waters, Steel Trails to Santa Fe, 23-24, 27-28, 31; Riegel, The Story of the Western Railroads, 116-117.
Pottawatomie Indian Reservation, from the Indians at the price of one dollar an acre. The company quickly exercised the privilege, and with this rich agricultural land available for security, Holliday was able to secure funds from Massachusetts' capitalists.²

The first ground was broken in Topeka on October 30, 1868, and the first tracks were laid in the spring of 1869, with 28 miles being completed that year. Construction supplies for the road were carried from Kansas City to Topeka by the Kansas Pacific, and the Santa Fe was thus able to avoid much of the difficulty and expense that had confronted the Union Pacific. In 1870 the Santa Fe built as far west as Emporia. This initial construction was of the poorest type. In order to save money no ballast was used on the line; the iron rails used were unstandardized and of the lightest type; wooden ties were untreated and the buildings were of the cheapest wooden construction.³

West of Emporia, Kansas, the road advanced into a territory inhabited only by bands of roving Indians and great herds of buffalo. In 1871 the end of the line reached the cattle town of Newton, thus marking the completion of a total of 137 miles. The Santa Fe then faced a new crisis: if the company wished to save the 2,928,928 acre Federal land grant under the terms of the act of 1863, the line had to be completed an additional 343 miles to the Colorado-Kansas line by March 3, 1873. Accordingly, an all-out effort was made in 1872, and 360 miles of track were completed at a cost of approximately $5,000,000 in less than nine

²Waters, Steel Trails to Santa Fe, 32, 35, 179-181.
³Waters, op. cit., 39-40, 42-43.
months, the first train reaching the Colorado-Kansas border on December 28, 1872. The eastern extension from Topeka to Atchison was also finished in 1872.¹

In the summer of 1873, following the Arkansas River west, the end of the line was extended to Granada, Colorado. Construction over this portion of the route was also cheap and simple. The land was relatively flat, and few curves, cuts, fills, or bridges were necessary. To save money, a minimum of grading was done, and the tracks were laid right on the prairie. Few stations were erected as there were then no towns in existence. Rip-roaring "Hell on Wheels" construction camps followed the Santa Fe's end of track across the plains. As the Santa Fe was working in Indian country, a strict military guard was maintained around every camp, as formerly on the Union Pacific, and every work train was a mobile arsenal. The Indians, however, were relatively peaceful during the period of construction, and there was no trouble on the scale that had been encountered by the Union Pacific. Shortly after reaching Granada, Colorado, the great panic of 1873 struck the nation, and all construction on the Santa Fe ceased for several years. Indeed, the company was fortunate to stay financially solvent.²

In 1875, under the guidance of its new president, Thomas Nickerson (1874-1880), the Santa Fe recovered, and resuming its building activities, reached Las Animas, Colorado, to the west and Kansas City to the east, in that year. At Las Animas, the Santa Fe came into direct and bitter conflict with the Kansas Pacific. The Santa Fe lay sixty-miles south of the Kansas Pacific and there intercepted the great Texas cattle

¹Waters, op. cit., 44-45
²Waters, op. cit., 44-49.
The cattle business furnished much of the traffic and revenue for the Santa Fe in this sparsely settled area during the Seventies. In 1876 the Santa Fe reached Pueblo, Colorado, but only 31 miles of railroad were added in 1877. The Santa Fe was now preparing to drive its line to Santa Fe. To facilitate this move, the company secured a charter in February, 1878, to build south from Colorado into New Mexico. This action precipitated the first of the Santa Fe - Denver and Rio Grande railroad wars.6

The Denver and Rio Grande had been organized in 1870 to build north and south along the eastern slopes of the Rockies, with the objective of drawing all traffic from southern Colorado north over the new road to Denver, and from that point goods were to be shipped east over the Kansas Pacific. The organizer and president of the Denver and Rio Grande was General William J. Palmer, lately of the Kansas Pacific. Construction on the three-foot narrow gauge railroad began between Denver and Colorado Springs in 1871; and, in 1872, the line reached Pueblo, Colorado, to the south, four years before the Santa Fe. It thus appeared that Palmer would cut off the Santa Fe and thereby maintain the supremacy of Denver. The Panic of 1873, however, stopped all progress on the Rio Grande, and the railroad was not able to push south to Trinidad, Colorado, until 1876. This delay enabled the Santa Fe, as we have seen, to move into a position from which it could challenge Palmer for control of the one feasible gateway into New Mexico and hence to the Pacific. This portal was the narrow Raton Pass, 7,807 feet above sea level and with room for only one line. Both companies now raced for the possession of this

6Waters, op. cit., 51, 54-55, 148-149.
prize. The Santa Fe won the contest by getting its work crews on the scene 30 minutes before the Denver & Rio Grande men could put in an appearance and also by virtue of a prior filing of a plat and profile for a line through the pass. This bloodless victory, obtained by a narrow margin of 30 minutes, thus determined the destiny of both lines and enabled the Santa Fe to proceed on westward across the continent. The Santa Fe at once consolidated its possession by building from La Junta, Colorado, via Trinidad, to Las Vegas, New Mexico, in 1878 and 1879. 7

The discovery of great silver deposits in the vicinity of Leadville, Colorado, immediately triggered a second and much more violent war between the two railroad companies. The only approach to these rich mines lay through the Royal Gorge of the Arkansas River. This pass was only 30 feet wide and was hemmed in by 1000-foot canyon walls. In April, 1878, the two companies again raced for possession of this strategic pass. The crews of both lines seized control of various sections of the canyon. The Santa Fe hired 100 gunmen from Dodge City and placed them, under the command of Sheriff Bat Masterson, along the sections of the canyon it held to protect its rights. The Denver and Rio Grande at once reciprocated by employing a like number of gunslingers from the mining camps. Two armed camps, complete with trenches and stone forts, were erected by the contending parties along the Royal Gorge. While occasional blood was being shed at the pass, the lawyers of the rival companies carried the fight into the courts, struggling from the Colorado courts to the

7Waters, Steel Trails to Santa Fe, 56, 97-100; Riegel, Story of The Western Railroads, 118, 184-185.
Supreme Court of the United States. To further increase its pressure, the Santa Fe also threatened to construct a line that would parallel every mile of track in Denver and Rio Grande territory.

The early court decisions and the financial difficulties of the Denver & Rio Grande combined to give the victory in the primary rounds to the Santa Fe. Thus in December, 1878, the Santa Fe took control of the Rio Grande under the terms of a lease. But the Santa Fe now made the fatal mistake of increasing rates on the Rio Grande to exorbitant heights, thereby prohibiting the movement of all traffic north to Denver and diverting that trade over the Santa Fe line to the east.

Public opinion in Denver was enraged by this stoppage of business, and Palmer, taking advantage of this feeling, was able in June 1879 to utilize the state militia and law enforcement officers to forceably dispossess the Santa Fe of its physical control of the Rio Grande property. Palmer further allied himself with Jay Gould of the Union Pacific and Kansas Pacific, the lines which had formerly carried the traffic of the Denver and Rio Grande east. In September, 1879, Gould purchased one half of the stock in the Rio Grande. In January, 1880, he announced that he was planning to parallel the main line of the Santa Fe from Pueblo to Great Bend, Kansas, with a road of his own. Shortly thereafter the United States Supreme Court and the Colorado State courts ruled against the Santa Fe. The combination of threats and legal decisions brought the Santa Fe to its senses. A peace treaty was signed in February, 1880. The Rio Grande was given a complete monopoly of the Leadville route, traffic to Denver was to be divided, and both roads agreed not to invade
The Santa Fe Station, Wichita, Kansas, 1880.
the territory of the other line. Thus came to an end the most spectacu-
lar railroad war of the nineteenth century. 8

Having been defeated in an effort to win a silver district, the
Santa Fe now resumed its way to the Pacific. In April, 1880, the rail-
road entered Albuquerque, New Mexico, and a branch line was also built
to Santa Fe. The company was now a $50,000,000 corporation and control-
led 1,300 miles of track. Its gross earnings amounted to more than
$8,556,000 in 1880, and the first dividends on its common stock were paid
that year. An agreement was reached with the Southern Pacific Railroad
of California whereby the two companies were to join their tracks at
Deming, New Mexico. The Santa Fe therefore built south from Albuquerque
in 1880 in the hopes that the new transcontinental line thus being formed
would drain most of the volume of Southern California and all of the
traffic of Arizona over its line to the east. At Deming, on March 1,
1881, the union of the lines occurred, and the United States apparently
had its second transcontinental railroad. 9

But a rude awakening was now in store for William B. Strong,
president of the Santa Fe (1881-1889). The Southern Pacific was a sub-
sidiary of the Central Pacific, and both companies were dominated by
Collis P. Huntington of the "Big Four." By means of these corporations
Huntington had established a monopoly of the railroad business in
California. Furthermore, working in alliance with Jay Gould, the Central
Pacific and Union Pacific held a complete monopoly of the transcontinental
traffic. Like a great dragon guarding the golden hoard, Huntington saw

8Waters, op. cit., 100-126; Riegel, op. cit., 186-188.
9Waters, op. cit., 59-60, 157, 188; Riegel, op. cit. 188-189.
no reason to grant the intruder any benefits. Such exorbitant rates were fixed on the Southern Pacific as to prohibit the movement of all goods east or west over this new transcontinental route. In reality then, the Santa Fe had a fine line to nowhere. In a desperate effort to reach the Pacific and thus break Huntington's stranglehold, the Santa Fe now built the Sonora railroad into Mexico. In October, 1882, this line reached Guaymas on the Pacific Coast, but the outlet was too far removed from the market to achieve its desired effect. Huntington stood unperturbed, and this second move was both an economic and strategic failure for the Santa Fe.10

But the Santa Fe was a tough railroad and did not give up easily. In 1880 the company acquired a half interest in the old Atlantic & Pacific railroad, and by means of this device the Santa Fe now launched its third effort to reach California.

The Atlantic and Pacific railroad had been organized in May, 1866, by the famous explorer John C. Frémont. In July, 1866, Congress granted the company the right to build a railroad by the most eligible route from Springfield, Missouri to Albuquerque, New Mexico. From that town the route was to follow the 35th parallel to the headwaters of the Colorado River and from there the company might follow the best route available to the Pacific. Congress also provided for a land grant to the company (that eventually amounted to 14,325,000 acres) to assist in the construction of the line. Finally, the Act authorized the Southern

10Waters, op. cit., 61-62; Riegel, op. cit., 189, 191-192. See also remarks under Footnote 13.
Pacific Railroad of California to build east and to connect with the Atlantic and Pacific railroad near the boundary of California at such point as should be deemed most suitable by the two companies.¹¹

The Atlantic and Pacific had been unable to make much headway, and by 1872 only 361 miles from Pacific, Missouri (near St. Louis), to Vinita in Indian Territory (Oklahoma), had been completed. The Panic of 1873 threw the company into receivership, and in 1876 control of the Atlantic & Pacific was acquired by the St. Louis and San Francisco (Frisco) railroad. The Frisco was an ambitious company but lacked the capital necessary to build westward. Thus in January, 1880; the Santa Fe was able to enter into an agreement with the Frisco. The Santa Fe purchased a half interest in the Atlantic & Pacific, and the Santa Fe and Frisco were to jointly construct a road from Albuquerque west to the coast under the charter of the Atlantic & Pacific.

Work on what was to be the main line west of the Santa Fe got under way in the spring of 1880. Much of this route lay over trackless, arid wastes with few inhabitants. This section presented the most difficult construction and engineering problems that the Santa Fe met in its march across the continent. For three years the Santa Fe labored on this line, but once again the company had failed to reckon with the greatest obstacle of all - the genius of C. P. Huntington.

To block the Santa Fe, Huntington constructed a branch line from Mojave, on the main line of the Southern Pacific, through Needles

¹¹Bancroft, History of California, VII, 594, 596; Waters, Steel Trails to Santa Fe, 64-65; Reigel, Story of the Western Railroads, 118-119; Daggett, Chapters on the History of the Southern Pacific, 123.
to the Arizona-California border, thereby blocking the only possible entrance into California. Never leaving anything to chance, Huntington, in cooperation with Jay Gould of the Union Pacific, also quietly purchased half and hence a controlling interest in the Frisco railroad in 1882. This maneuver gave Huntington and Gould equal control, with the Santa Fe, over the Atlantic & Pacific. As no action could be taken without the consent of both parties, Huntington had again neatly checkmated the plans of the Santa Fe.

The best that the Santa Fe could salvage from this impasse was an agreement that the Southern Pacific line would meet the Atlantic & Pacific road at Needles. Contact between the two railroads was made at that point in August 3, 1883, and supposedly the Santa Fe now had a direct outlet to San Francisco over the Southern Pacific lines. But once again linking lines with the Southern Pacific meant nothing. Huntington diverted traffic over his own lines and discriminated so heavily against Santa Fe business that the Atlantic & Pacific road received little traffic. Huntington's California monopoly and the Central-Union Pacific control of the transcontinental traffic were still secure.  

The Santa Fe now girded itself for a fourth attempt, and this time secured a limited entrance into California. The citizens of the small towns of San Diego and San Bernardino had been enraged because the Southern Pacific had bypassed their towns. These people, acting together in cooperation with officials of the Santa Fe, had chartered the California Southern Railroad in October, 1880, for the purpose of

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building from San Diego to San Bernardino. From there they planned to form a junction with the Atlantic & Pacific. Construction on the line began in 1881, and San Bernardino was reached in September, 1883. The situation had now turned in favor of the Santa Fe, and the company threatened either to parallel the Southern Pacific Mojave division or to construct over the shorter route to a junction with the California Southern. As either of these moves would reduce the value of the new Mojave division to scrap, Huntington was finally brought to terms in 1884. The Southern Pacific's Mojave division was leased to the Santa Fe. To insure Huntington's good faith, the Santa Fe also acquired a half interest in the California Southern, and the lines of that railroad were connected with those of the Atlantic & Pacific in November, 1885. Thus after 15 years of effort the Santa Fe finally entered California and reached the Pacific Coast over its own line.

Under the agreement of 1884, the Santa Fe was to be admitted to San Francisco over Southern Pacific tracks. But as in the past, Huntington disregarded the terms, to the disadvantage of the Santa Fe. Huntington was still a mighty power. As late as 1889 the Santa Fe had succeeded in securing only 16% of the California business south of San Francisco, and it was not until 1900 that the first Santa Fe train reached San Francisco over the company's own track. By 1893 the Santa Fe system controlled 9,348 miles of track.¹³

¹³ Bancroft, op. cit., 613-615; D ggett, op. cit., 330-332; Waters, op. cit., 71-74, 130-133, 140, 206, 341. Riegel, in The Story of the Western Railroads, 192-193, attributes the Santa Fe victory in securing an entrance into California to the building of the Sonora Railroad. New evidence presented by Waters, however, indicates that the California Southern, and not the Sonora Railroad, had this effect. In 1897 the Santa Fe traded the Sonora Railroad for the Mojave Division of the Southern Pacific.
Victory over Huntington. The arrival of the first Santa Fe train at San Bernardino, California, September 13, 1883.

Courtesy, Santa Fe Railway.
Southern (and Central) Pacific, 1865-1885

By 1869, in spite of great odds and numerous obstacles, Huntington, Stanford, Hopkins and Crocker had succeeded in completing the 742-mile Central Pacific from Sacramento to Ogden and also the Western Pacific from Sacramento to San Francisco. For these feats the "Big Four" were widely and justly acclaimed. Exhausted by these trials, they decided to withdraw from the business and retire as wealthy men. In 1870-71 they offered their stock for sale on the market but were shocked to discover that their shares would realize only a few cents on every par value dollar. It then became apparent that if they wished to receive the fruits of their labor, they must remain in the transportation business and develop the Central Pacific into a thriving corporation.¹

Following a policy well developed by stage and express companies and the Pacific steamship lines in the sixties, the "Big Four" had from the first made an effort to obtain control of all rival railroads in California and by means of this monopoly to enhance the position of the Central Pacific. It was with this end in view that they obtained control of the Southern Pacific Railroad Company of California. The Southern Pacific had been chartered under the laws of that state in December, 1865, for the purpose of constructing a railroad from San Francisco through southern California to San Diego and thence to the eastern border of the state, where the line was to unite with a railroad building west from

the Mississippi River. Congress, in the Act of 1866, had also authorized
the Southern Pacific to connect with the Atlantic & Pacific Railroad
Company, which was to build west from Springfield, Missouri, along the
35th parallel to California, at or near the boundary of that state. A
large federal land grant, but no bond subsidy, was to be given to both
railroads to assist in the construction of these roads. The "Big Four"
acquired control of the Southern Pacific in 1868 for the purpose of pro-
tecting their Central Pacific interests; and after they decided to remain
in the railroad business, their new company became the main instrument
in their campaign to achieve a complete monopoly of railroads in
California.²

Construction on the Southern Pacific got under way in 1871,
with the line building south from San Francisco by way of the San Joaquin
Valley to Los Angeles. By 1873 a road was also under construction from
the Mojave, on the main line, to the Colorado River and Needles, for the
purpose of blocking the entrance of the Atlantic and Pacific Railroad
into California. The failure of the Atlantic and Pacific to secure funds
and cooperation in San Francisco, together with the Panic of 1873, however,
brought all construction to a halt on that road. Relieved of fear of
invasion by this route, the Southern Pacific therefore temporarily aban-
doned construction on the Needles division, and concentrated its means
on a line to Yuma, Arizona, in an effort to prevent the entrance into
California of a second proposed transcontinental line, the Texas and
Pacific Railroad.

²Bancroft, History of California, VII, 593-594, 597; Daggett,
Chapters on the History of the Southern Pacific, 120, 122-123; Riegel,
op. cit., 93-94, 179; Clark, op. cit., 233, 260-261.
The Texas and Pacific had been chartered in 1871 to build from Marshall, Texas, along the 32nd parallel and by way of the Yuma crossing of the Colorado River to San Diego, California. Under the presidency of Thomas A. Scott, also vice-president of the Pennsylvania Railroad, construction on the Texas and Pacific was started, and in 1873 the work was completed as far west as Dallas, Texas. But the Panic of 1873 was disastrous, and all construction on the line came to a halt. Scott then turned to Congress for further assistance, requesting a bond subsidy in addition to its land grant. Huntington, as president of the Southern Pacific, vigorously opposed Scott's plan in Congress and countered by attempting to obtain a Federal land grant for the Southern Pacific to build east over the same route. After several years of bitter contest, it became apparent that both plans were deadlocked as far as Congress was concerned. Huntington therefore decided to proceed with his own plan, without the authorization of Congress and without benefit of Federal assistance. A Southern Pacific was accordingly chartered in both Arizona and New Mexico for this purpose, and in 1877 the Southern Pacific succeeded in building as far east as Yuma, thereby blocking a second transcontinental entrance into California.

By 1877 the Central Pacific-Southern Pacific combination had acquired control of 85% of all the railroads in California and operated 2,337 miles of track. The combined capitalization of the two corporations amounted to $224,952,580, and their gross earnings totalled $22,247,030 a year. In addition to the California monopoly, the Central Pacific, working in cooperation with the Union Pacific, enjoyed a complete monopoly of the transcontinental traffic from 1869 to 1883. As their
Constructing the Southern Pacific bridge across the Colorado River at Yuma, Arizona, in 1877.

 Courtesy, Southern Pacific Railroad.
only competition was from the Pacific Mail Steamship Company, the Central Pacific, in partnership with the Union Pacific, established the Occidental and Oriental Steamship Company in 1874 for the purpose of keeping this rival in line. The "Big Four" not only dominated the transportation field in California, but were in reality the power behind the throne in the politics of that state.3

In March, 1881, Huntington extended the Southern Pacific line from Yuma to Deming, New Mexico, thereby blocking, as we have seen, the entrance of the Santa Fe railroad into California and also protecting the Central-Union Pacific transcontinental monopoly. In the meantime, however, Scott, of the Texas & Pacific, had realized that he was beaten in his efforts to reach California and disposed of his holdings to Jay Gould of the Union Pacific, who was then just in the process of building up his southwestern railroad system. Gould and Huntington came to an agreement in 1881, whereby the Texas & Pacific and the Southern Pacific tracks were to be joined near El Paso, Texas, and the traffic was to be prorated. The junction of these two lines occurred in 1882, a short distance east of El Paso. Huntington was apparently not willing to put too much trust in Gould's word, and in 1883 the Southern Pacific completed its own transcontinental line by forming a junction with the Galveston, Harrisburg, and San Antonio Railroad, which had steadily been building west. The acquisition of this company and the construction of additional lines soon produced a Southern Pacific through-route from San Francisco to New Orleans. The control of a steamship line next gave the railroad a

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3Bancroft, op. cit., 585; Daggett, op. cit., 140, 199-221, 226-230.
direct connection with New York. By 1883, the nation thus had a third transcontinental railroad.

In 1884, as we have seen, the Santa Fe achieved a limited victory over Huntington by forcing its way into Southern California and obtaining a small share of traffic in that portion of the state. The same year, however, Huntington succeeded in wresting control of the Oregon and California Railroad Company from the hands of Henry Villard, and by this move secured the entrance of the Southern Pacific from San Francisco north into Portland, Oregon. This victory enabled Huntington to force the Northern Pacific and Union Pacific to divide the rich trade of the Pacific Northwest with him.

The Southern Pacific now far surpassed the Central Pacific in mileage and importance. Huntington formally recognized its situation when the Southern Pacific was reorganized as the Southern Pacific of Kentucky in 1884 and the Central Pacific was leased to the new company in 1885. In that year the Huntington's combination operated 4,698 miles of railroad. By 1896 his companies controlled 7,300 miles of track and operated 3,500 miles of sea lines between Portland, New Orleans, and New York.4

In summarizing the achievements of the "Big Four," Bancroft noted rather wryly:

"Though men may differ in opinion as to the policy of the directors ('the railroad quartette'), it must be at least conceded that they displayed a singular combination of business ability, together with a remarkable aptitude for harmonious cooperation."5

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4Bancroft, op. cit., 610-612; Riegel, op. cit., 119-120; 179-183; Daggett, op. cit., 125-126, 275, 348-349, 362.

5Bancroft, op. cit., 585-586.
The Northern Pacific, 1864-1887:

The Northern Pacific Railroad Company was chartered by Congress on July 2, 1864, and was authorized to build a main line from Ashland and Superior in Wisconsin, at the head of Lake Superior, across the continent to Puget Sound, and also to construct a branch line via the valley of the Columbia River to Portland, Oregon. The United States further agreed to grant the company, for the purpose of assisting the project, forty alternate sections of public land for each mile of road built through the territories, and twenty alternate sections through the states. In all, the company was to receive almost 40,000,000 acres under this act. The 1864 project thus presented in concrete form the plan first proposed by Asa Whitney in 1845 for a transcontinental railroad over the same route.

Like the other promoters of transcontinental lines, the backers of the Northern Pacific found it impossible to raise the necessary capital to commence construction until the Civil War had ended. Finally, in 1869, they succeeded in interesting Jay Cooke, then the head of the greatest banking firm in the United States, in the project, and the success of the Northern Pacific seemed assured.

Cooke, often called the "Financier of the Civil War," had invented and developed the technique of the "war bond drive." Advertisements were taken in newspapers on a nation-wide basis and hundreds of speakers were dispatched to raise the patriotic enthusiasm of Union supporters to a fever pitch. By these means Cooke induced thousands of Americans to subscribe to United States bonds: millions of dollars were thus raised for use of the United States Government during the Civil War; and, at the
same time, Cooke, working on a commission basis, also amassed a fortune for himself.¹

Cooke signed an agreement with the Northern Pacific under which he contracted to sell $100,000,000 of the company's stock and an equal amount of bonds to provide money for construction. Again employing his war-time techniques, Cooke launched an extensive advertising campaign by means of articles and advertisements in pamphlets, newspapers, and magazines throughout the United States to sell these stocks and bonds. Similar efforts were carried out in Europe for the purpose of attracting English, Dutch, and German capital. Installment plan buying was offered to lure money from the general public.

Funds soon began to pour in, and the first actual construction began in February, 1870. Building was pushed ahead as rapidly as the sale of stocks and bonds brought in cash, and by 1873, the eastern division of the Northern Pacific stretched from Duluth, Minnesota, to Bismarck, North Dakota. In the Far West, the track extended southward from the new town of Tacoma on Puget Sound, in Washington, to Kalama on the Columbia River near Portland. In all about 500 miles had been completed.

The railroad now met with disaster. The outbreak of the Franco-Prussian War in 1870 had dried up the flow of money from European sources. The large bonuses and commissions paid to Cooke's banking houses for the sale of stocks and bonds, and the large blocks of stocks donated to important politicians, left little actual cash for construction. In the spring of 1873 rumors of corruption, extravagance, and mismanagement reached the American public and cut off the sales of securities in that market. Cooke himself was overloaded with non-negotiable paper and

¹Ellis P. Oberholtzer, Jay Cooke, Financier of the Civil War (2 Vols., Philadelphia, 1907), is an excellent biography of this gentleman.
could make no further cash advances to the railroad. On September 18, 1873, the doors of Jay Cooke & Company - the most important banking house in America -- were closed.

Cooke's failure precipitated one of the worst financial panics in the history of the United States. The value of all securities fell rapidly, and hundreds of other banking houses fell with the crash. Ready money became non-existent, and the entire credit system of the nation collapsed. Construction on the Northern Pacific and hundreds of other railroads came to a grinding halt. In 1875 the Northern Pacific passed into bankruptcy, from which it was not to emerge until 1879.²

While the Northern Pacific lay dormant from 1873 to 1879, certain events were transpiring in Oregon that were to have an important influence on the future history of the company. In 1866, after selling out his overland stage and express line, Ben Holladay, the former "stagecoach king," moved to Portland, Oregon. Here he soon established himself as a steamship magnate, operating the Oregon Steamship Company which ran between Portland and San Francisco. In 1868 he entered the newly formed railroad field and by 1872 had constructed 200 miles of the Oregon and California Railroad from Portland south to Roseburg, Oregon. Through his control of this latter company, the Oregon Central Railroad, and the Oregon Steamship Company, Holladay dominated the entire transportation industry of the state. By 1873 almost $11,000,000 had been invested in Holladay's enterprises by English and German capitalists. Thus when financial difficulties struck the companies as a result of the panic of

Chinese Coolie labor on the Northern Pacific in the 1880's. Due to the scarcity of labor following the Civil War, it was necessary to import 15,000 Chinese to help build the Northern Pacific. These, together with 10,000 white laborers, completed the railroad on September 8, 1883. This scene is in the western Montana Rockies along the Clark's Fork River.

Courtesy Northern Pacific Railroad.
that year, the German bondholders dispatched Henry Villard as their representative to the scene to investigate the situation.

Villard, who had emigrated from Germany to the United States in 1853 and established himself as a newspaperman, arrived in Oregon in 1874. After a careful study of the problems he worked out an agreement with Holladay that was designed to protect the interests of the German bondholders. Holladay, however, chose to ignore these terms. Thus, in 1876, Villard had Holladay removed from control and himself elected as president of the Oregon and California Railroad and the Oregon Steamship Company. Indirectly he also assumed control of the Oregon Central Railroad. In 1879, working in cooperation with Jay Gould of the Union Pacific, Villard secured control of the Oregon Steam Navigation Company - a firm that dominated river traffic on the Columbia River from Portland east into the inland empire. This move gave Villard a virtual monopoly of all river and railroad traffic in Oregon.

Villard next united his four companies into a new organization called the Oregon Railway and Navigation Company. With this great holding company to back him, Villard, in 1879, planned to build a water level railroad along the south bank of the Columbia River to the interior. This line would not only draw all of the rich traffic of the Columbia Valley into Portland, but would also cut off the Northern Pacific in its attempt to reach Tacoma, Washington. Under Villard's plan, Portland - already a bustling metropolis - and not Tacoma, would be established as the outlet for the northern transcontinental traffic and hence would become the great commercial center of the Pacific Northwest.³

Unfortunately for the easy realization of Villard's plans, the Northern Pacific emerged from receivership in 1879 and, under the leadership of Frederick Billings, again resumed building its lines west from Bismarck, North Dakota. Moreover, the Pacific goal of the Northern Pacific was not the river port of Portland, then handicapped as a seaport by obstructions to navigation in the lower Columbia River, but the potentially great seaport of Tacoma, where the Northern Pacific had already commenced the development of port facilities to serve as the western terminal of the railroad.

Villard first endeavored to induce the Northern Pacific to enter into an agreement whereby that railroad would utilize the lines of the Oregon Railway and Navigation Company for its western connection, thus bringing the Northern Pacific into Portland. When the railroad rejected this offer, Villard next devised the idea of creating a great holding company that would acquire control of both corporations and operate them in "harmony" (i.e. - in the interests of Portland).

To accomplish this coup, Villard required the immediate control of at least $8,000,000 to purchase a controlling block of Northern Pacific stock. The entire operation, moreover, had to be carried out quickly and in secret before news of his plan could leak out and thus drive up stock prices to a prohibitive level. Villard therefore organized his famous "blind pool" in 1881 to achieve these ends. Under this plan he offered investors and speculators a chance to invest their money in a pool organized for an unstated reason and backed only by the security of Villard's word. The scheme was a brilliant success: Villard soon had his money and at once acquired financial control of the Northern Pacific.
Members of a Northern Pacific work crew at the Green River Crossing in 1885 during construction of the switchback route over the Cascades in western Washington, prior to the boring of the Stampede tunnel.

Courtesy Northern Pacific Railroad.
He then assumed the presidency of that railroad and organized his great holding company, the Oregon and Transcontinental Company, for the purpose of unifying his various interests. A new bond issue was floated, and work on the Northern Pacific was continued. By September, 1882 construction on the eastern end of the track reached Billings, Montana, 475 miles from the nearest track on the western division. One year later, on September 8, 1883, the last rail on the Northern Pacific was laid near Garrison, Montana and the fourth transcontinental railroad was completed. The western terminus of the new line was Portland.

Financial difficulties, resulting in part from the heavy costs of construction, forced Villard's resignation in 1884, and control of the Northern Pacific returned to the group of men whose original plan had been to build to Tacoma on Puget Sound. Their determination in this matter was further strengthened by the approach from the east of James J. Hill's Great Northern Railroad. Work was accordingly resumed on this project, and a line was constructed from the confluence of the Snake and Columbia Rivers across the Cascade Range to Puget Sound in an effort to cut Hill's road off from the Pacific Coast. The Northern Pacific's transcontinental line to Tacoma was completed on July 3, 1887.\(^4\) As a Whitney's dream was at last a reality.

Northern Pacific president Henry Villard's "Last Spike" train at Gold Creek, Montana Territory. Here the last spike in the transcontinental line from St. Paul, Minnesota, to Portland, Oregon, was driven on September 8, 1883.

Courtesy Northern Pacific Railroad.
The Great Northern Railroad, 1862-1893

The first four railroads to reach the Pacific were guided by men who were primarily promoters and speculators. But the last railroad to cross the continent in the nineteenth century was led by a man of an entirely different nature, James J. Hill, who was the first of the great railroad operators in the West and the prophet who successfully introduced the concepts of efficiency and economy of operation into the Western railroad scene.

Hill was born in Ontario, Canada, in 1838 and emigrated to St. Paul, Minnesota, in 1856. Here he entered into business as a traffic agent for various river steamboat lines and railroad companies of that area. In the process Hill acquired a small fortune and thoroughly familiarized himself with the transportation industry and the potential resources of the Northwest. But he was not satisfied with these accomplishments and, possessed by Napoleonic-sized ambitions, he quietly bided his time, awaiting an opportunity to make a name for himself in the history of western transportation.

Hill's hour of destiny struck during the Great Panic of 1873, which threw the St. Paul and Pacific Railroad into bankruptcy, and he soon moved forward to grasp his opportunity.¹

The St. Paul and Pacific Railroad Company had been chartered by the State of Minnesota on March 10, 1862, and the 10-mile stretch of track that the company laid between St. Paul and Minneapolis in the same year was the first railroad to be constructed in the state. Control of

¹Pyle, The Life of James J. Hill, I, 9, 22, 24-105, 151; Riegel, The Story of the Western Railroads, 212.
Gassman Coulee Bridge, about three miles west of Minot, North Dakota, from which point the St. Paul, Minneapolis and Manitoba Railway, predecessor of the Great Northern, began laying its rails to Montana in April, 1887. The bridge, 1609 feet long and 102 feet high, was constructed in 1886-87.

Courtesy, Great Northern Railway.
the company, with its 272 miles of completed road, was acquired by the Northern Pacific in 1870 and retained until 1873.

When the St. Paul & Pacific passed into bankruptcy in 1873, its two main lines were yet incomplete; one stretched north from St. Paul towards the Northern Pacific and the second from St. Paul west to a point near the Dakota boundary. The company still held the right to build a total of 770 miles of road and to receive in return for this construction a land grant of 5,184,000 acres. Thus, although financially distressed and unfinished, the company was potentially a rich prize.

From 1873 to 1878, a receivership, representing the Dutch bankers who held the stock and defaulted bonds of the line, operated the road. After prolonged negotiations with these foreign owners, Hill, backed by Canadian and English capital, was finally able to acquire control of the company in 1878.\(^2\)

In May 1879, Hill; Donald A. Smith, of the Hudson's Bay Company and later the builder of the Canadian Pacific; Norman W. Kittson, also of the Hudson's Bay Company; and George Stephens, of the Bank of Montreal, reorganized the St. Paul & Pacific as the St. Paul, Minneapolis & Manitoba Railroad. The new company was capitalized at $20,000,000 and held the right to construct 667 miles of road, of which 565 miles had already been completed. Stephens was elected president, but it was Hill as the general manager who really dominated the new company.

Because of his Canadian backing, Hill's railroad first began building north to form a junction with the Canadian Pacific Railroad,

\(^2\) Pyle, \emph{op. cit.}, 154, 158.
which was then starting its way across the continent. At the same time, however, Hill also pushed his westbound lines to Fargo and Grand Forks on the eastern border of North Dakota. By 1883, when Hill assumed the presidency of the company, the two northern lines had reached the Canadian border and the western main line had been advanced to Devil's Lake in North Dakota.

Hill's great ambition was to build his road to the Pacific, but in this project he was confronted by several difficulties. First, as his line would parallel the Northern Pacific, he could expect the most determined opposition from that company, which in 1883 had just succeeded in completing its own transcontinental line into Portland, Oregon. Second, then was the problem of funds. Hill would be advancing west without the assistance of Federal land grants and subsidies. Moreover he must build through an unsettled country with little existing traffic for his line to carry. Hill therefore adopted the policy of building west in careful stages, pausing to allow the country to develop behind him, thus creating the traffic and also the necessary revenues to permit the next step forward. To speed up the process, immigration was encouraged, and branch and feeder lines were carefully built to open up the country more rapidly.

In 1887 Hill made his second giant step across the continent. End of the line was driven west 643 miles from Minot, North Dakota, by way of the mouth of the Milk River and Great Falls, to Helena, Montana; 8,650 men and 3,325 teams were employed in building the great extension. In response to this challenge, the Northern Pacific constructed its line in 1887 from the confluence of the Columbia and Snake Rivers over the
“When our gang came out from supper.” A work crew of the St. Paul, Minneapolis & Manitoba Railway, in Montana Territory in 1887, building westward from Minot to Helena.

Courtesy, Great Northern Railway.
Cascade Range to Tacoma, Washington, in the desperate hope of heading off Hill in his plan to reach the Pacific Coast.³

In September, 1889 Hill completed his plans for the final 838-mile thrust to the Pacific. The St. Paul, Minneapolis & Manitoba was reorganized as the Great Northern Railway Company. The new corporation, controlling 2,770 miles of completed track, was capitalized at $40,000,000. Work on the Pacific extension was begun at Havre, Montana in August, 1890. In a last desperate effort to prevent Hill from entering Seattle, the Northern Pacific acquired control of the Seattle, Sake Shore and Eastern Railroad in 1890. But Hill was not to be denied the consummation of his great dream. Through the passes and over the crests of mighty mountains his line was driven; 104 miles completed in 1890, 162 in 1891, and 554 miles in 1892. Finally, at Everett, Washington, on Puget Sound, the last rail was set in place on January 5, 1893, and Hill’s great road to the Pacific was a reality.⁴

In commenting on his labors from 1879 to 1893, Hill said in 1894: "It was a great undertaking and a great risk. We succeeded in part because the time was ripe. The growth of the country just at that time helped us. But we succeeded also because we worked hard in every way. We tried to build a good railroad, to attract immigration, to operate economically, and increase traffic."⁵

⁴Pyle, op. cit., I, 461-463; Riegel, op. cit., 214; Hedges, op. cit., 203-205.
⁵Quoted in Pyle, op. cit., I, 277-278
Driving the last spike in the Great Northern Railway's transcontinental line, January 6, 1893, near the present station of Scenic, Washington, in the Cascade Mountains.

Courtesy, Great Northern Railway.
Epilogue and Prelude, 1893-1898¹

In 1893 the greatest financial storm the United States had yet experienced shook the nation to its economic foundations. Five hundred and fifty-four banks and 156 railroads, with a combined total capitalization of more than $2,500,000,000, went into bankruptcy as a result of the Panic of 1893. Into this whirling vortex of economic disaster plunged the Union Pacific, the Northern Pacific, and Santa Fe. Even Huntington's mighty Southern Pacific system hovered on the brink of bankruptcy and only Hill's Great Northern stood as firm as a rock. The economic cataclysm of 1893 may be said to mark the end of the old age of railroading and the birth of a new era. Grasping the opportunities created by this upheaval, new men came forward to apply new ways and ideas to railroading in an effort to set the companies back on the tracks to prosperity.

Some of the causes of this 1893 disaster, such as several years of draught and crop failures in the West, were beyond the control of the railroads, but many others were directly the result of the railroads' own actions. Chief among these latter causes was the over-intensive competition between the continental railroads from 1833 to 1893. Bitter rate wars had resulted in ever lowered fares and hence to the eventual reduction of the net earnings of the companies to ruinous levels. The same competition also led the companies to acquire or construct thousands of miles of

¹A brief summary of the effects that the completion of transcontinental railroads had on the development of the West, and also of the economic wars between the companies from 1833 to 1892, will be found on pages 8 to 12 of this text.
costly, over-capitalized, and poorly built branch and feeder lines in an effort to win traffic away from rival companies. Many of these additions were consistent money losers. In addition to being over-expanded, the companies were over-capitalized and therefore burdened with high fixed charges that could not be reduced in times of slack business. Finally, the first four transcontinental railroads had become obsolete by 1893. In each of their desperate races to cross the continent, capital had necessarily been secured only at high rates of interest, and the lines had therefore been built with a view to speed and cheapness of construction rather than to long term efficiency of operation. Thus by 1893, the high fixed costs continued unabated; the gross earnings of the companies fell rapidly due to competition and the depression, and costs of operation rose rapidly as the light original lines prevented the use of heavier and more powerful locomotives and cars to improve the efficiency of operation. In 1893 the costs far exceeded the revenues, and disaster struck.

In this extremity, three transcontinental railroads passed through the purgatory of receivership from 1893 to 1898. The fourth escaped this fate but also received similar emergency treatment. In this process each system was ruthlessly pruned of its money-losing branch lines. The water was squeezed out of the stock, and debts were refunded at a low rate of interest. Fixed costs were thus reduced to an absolute minimum. The main line of each system was entirely rebuilt with a view to long-range reductions in cost of operations and to an immediate improvement in efficiency of operations. Millions of dollars were thus
expended in shortening lines, reducing curves and grades by building cutoffs and driving costly tunnels through the mountains. Heavy steel rails and strong bridges now replaced the lighter, original construction. These improvements enabled the companies to use the heaviest and most powerful engines and also the correspondingly large cars. Safety devices and signal systems were also introduced. In brief, the great railroad systems were completely modernized and the costs of long-range operation reduced to a minimum.

James J. Hill, backed by the great banker J. Pierpont Morgan, acquired control of the bankrupt Northern Pacific in 1895 and performed these essential operations on that line. Similar services were effected on the Santa Fe by its new president Edward P. Riley in 1895-96. Out of the shadows emerged Edward Henry Harriman, the superman of American railroading. In 1898 Harriman first acquired control of the Union Pacific, and then also the Southern Pacific. Under his direction both lines were rebuilt and combined into the greatest railroad system the world had ever seen. A new railroad age had dawned - an age of unprecedented prosperity, power, wealth, and of gigantic railroad combinations such as the nation had never known - an age of "harmony" wherein the titans Hill and Harriman clashed in railroad wars that shook the American financial world to its roots.²

The following select bibliography constitutes only an introduction to the literature of transportation and communication in the West. As no one work has yet summed up this subject, it has been necessary to read many books in order to write this brief paper. The most important works used are here listed and additional excellent sources for suggested reading have also been mentioned in the footnotes of the text.

Overland Mail and Pony Express


This most recent treatment of the subject is largely a re-hash of material presented by earlier authorities. The illustrations, however, are excellent and the maps fair.


This work is one of the best treatments of the subject.


An excellent pioneering work setting forth the important accomplishments of the Topographical Corps of the U. S. Army in exploring the West and of surveying and discovering many of the early mail and stage routes as well as the Pacific Railroad surveys.


This is the classical and scholarly study of the entire subject; excellent map. All writers on the subject, including this one, have been heavily indebted to Dr. Hafen's great work.


An admirable history of the role of this great company in the stage and express business of the West.


An important work stressing the major role played by the United States Government, through the U. S. Army and U. S. Department of the Interior, in constructing roads, for mail routes, military and immigrant uses in the West.

This is an excellent history of the freighting, staging and express business of the great firm of Russell, Majors and Waddell.


Probably the best and most reliable of the modern works on the subject. Its usefulness is marred only by the lack of an index and a good map.


A sound and colorful general survey of the express and staging business in the West.

**Telegraph**


The standard history of the telegraph.

**Railroads**

The history of the role and effect of the transcontinental railroads in the history of the United States would seem to offer a fertile and important field for a re-evaluation of the entire subject. The standard histories of the western railroads are nearly all now 30 to 40 years old and much new evidence should have come to light.


This great work is old, but all writers have been heavily indebted to Bancroft as the source of much of their information. To this praise we may also add that Bancroft pulled few of his punches, even in 1890, when writing of the Central and Southern Pacific.


An "official" biography, which contains much valuable correspondence of the "Big Four."


A very fine and sound history of this company, but limited almost entirely to a study of the railroad's activities in California.

The author's long experience in engineering and contracting makes his opinions of the difficulties and accomplishments of the builders particularly interesting and valuable.


A very fine scholarly work that contains important information on the Great Northern, Northern Pacific, Union Pacific, and Southern Pacific, as well as on Henry Villard.


A very fine "official" biography, and also full of important data on the history of the Union Pacific and Southern Pacific in the period 1892-1898.


This is an interesting, colorful, and generally accurate survey of the lives of the "Big Four."

Olberholtzer, Ellis P., Jay Cooke, Financier of the Civil War. 2 Volumes, Philadelphia, 1907.

An excellent biography that also contains much on the early history of the Northern Pacific. The Northern Pacific could well stand a modern history as its official history was published under Henry Villard's direction in 1883.


An excellent biography of the Chief Engineer who directed the construction of the Union Pacific.


A good "official" biography and one which also contains much important data on the history of the Northern Pacific as well as the Great Northern Railroad.

A fine one volume survey of the entire role of the railroad in the West. The book, however, is now almost 35 years old and - in the light of new evidence - could well be revised.


A great and scholarly study of this railroad, but almost overwhelming in its attention to financial and economic details, as its subtitle implies.


A very fine, sound, and modern study of the history of the Atchison, Topeka, and Santa Fe Railroad.
A BRIEF SURVEY OF THE PRESENT CONDITION AND DISTRIBUTION OF SITES ASSOCIATED WITH TRANSPORTATION AND COMMUNICATION

In view of the important role that transportation and communication has played in the development of the West, one might expect to find this colorful theme well represented by a goodly number of important and well preserved sites. The survey reveals, however, that opposite case prevails; few important sites remain intact and little has been done to preserve them.

Conditions on the Southern (Butterfield) Overland Route

Out of the 139 stations that lived this 2,795 mile road from 1858 to 1861, only one original station, the Oakgrove State Station, situated in San Diego County, California, survives intact. This structure is privately owned and is now utilized as a gas station and general store. A second possible Butterfield station, the Warmer Ranch adobe station, also still stands in San Diego County; its claim as an Butterfield station, however, has been disputed.

The State of California has identified and marked the sites of 20 former stations or points on the Butterfield trail through Southern California. The County of San Diego has carefully reconstructed a sod house station on the original site of the Butterfield Vallecito Station.

In many places throughout Texas, New Mexico, and Arizona, ruins of old Butterfield stations and sections of the original trail are still much in evidence. In Arizona and New Mexico can also be found the remains of stations used by other stagecoach lines. But in no case, has there been a significant attempt made by any agency to preserve these or portions of the original trail.
Conditions on the Central Overland Mail Route

Of the 150 stations that supported operations on this 1,966 mile road from 1859 to 1869, only nine buildings still stand. Two of these structures are preserved as historic sites and the remainder are privately owned and utilized for non-historic purposes.

The only two original Pony Express buildings still standing in California are located in Sacramento and are privately owned and used for commercial purposes. They served as the western terminal of that line and one was also the telegraph office of a company that helped build the first transcontinental telegraph line. Both of these structures, plus a third early telegraph building, are threatened by the redevelopment now underway in the old portion of that city. The State of California has developed plans that would preserve all three buildings and restore them to their 1860-69 appearance. California has also identified and marked all 15 sites located in that state that are associated with the Pony Express. The original trail from Sacramento to the last, is today followed closely by U. S. Highway 50. This road, however, has been so built up with camps, gas stations, and lunch rooms that it conveys little of the atmosphere of stagecoach days.

In Nevada the State Historical Society and the Nevada Pony Express Centennial Commission recently completed the difficult project of marking the complete Pony Express route across that state. The course of the original trail is designated by six-foot - orange-colored, steel stakes that have been driven to the ground at intervals of every quarter mile. No effort, however, has been made to mark the sites of original stage and Pony Express stations.
From Carson City east to Eastgate, Nevada, the original trail closely parallels U. S. Highway 50, but at Eastgate, the route swings to the northeast and continues for 200 miles across completely wild and very rugged country, finally emerging from Egan Canyon near the Nevada-Utah line. The Eastgate-Egan Canyon portion of the trail can only be followed by jeep or on horseback. This section of the original stage and Pony Express trail is still virtually intact. At Fort Churchill the Nevada State Park Commission administers an important site on the early stage, Pony Express, and telegraph line, but provides no interpretation at the Park.

At Fairfield, Utah, the Utah Park and Recreation Commission has recently acquired Carson Inn, a tavern associated with the Central overland stage line. From Utah east to Missouri, the trail has been marked, but only one site, the Hollenberg Pony Express Station, in Kansas, has been preserved by that state as a historic site.

Transcontinental Railroads

As the five great transcontinental railroads, in spite of modern improvements and cutoffs, still largely follow their original alignments across the continent, it can perhaps be argued that each road is a living monument to the original builders. But if this theory is rejected, it then becomes apparent that little has been done to preserve sites associated with the important histories of these railroads.
At Promontory Summit, Utah, the site of the driving of the last spike in the first railroad to the Pacific, and the most important site in western railroad history - a fraction of an acre of land has been set aside and is administered by the Golden Spike Association of Box Elder County, in cooperation with the Southern Pacific Railroad, the Utah State Historical Society, and the National Park Service. At Pioneer Village in Salt Lake City, and at Railroad Village in Corinne, the Sons of the Utah Pioneers interpret in museums and outdoor displays the history of western railroading.

The Big Four House in Sacramento, California, where Huntington, Stanford, Hopkins, and Crocker built the Central Pacific and obtained control of the Southern Pacific, still stands, although in considerably altered form. This building is privately owned and used for commercial purposes. The structure is threatened by redevelopment of Sacramento and the State of California has drawn up plans proposing the preservation of the Big Four House and its restoration to its original appearance.

In Colorado, railroad enthusiasts have evinced considerable interest in saving historic railroad equipment and preserving a vestige of the Denver and Rio Grande narrow gauge railroad between Durango and Silverton. The James J. Hill House in St. Paul, Minnesota, and the Grenville Dodge House at Council Bluffs, Iowa, still stand but are both privately owned and utilized for nonhistoric purposes. Finally, careful inquiry and search of the Portland area has failed to locate any surviving site that can be closely associated with Henry Villard, the great Oregon builder of the Northern Pacific. The Henry Villard house, of course, is still standing in New York City.
SITES OF EXCEPTIONAL SIGNIFICANCE
APACHE PASS, ARIZONA

Location: Cochise County 15 miles south of Bowie

Ownership and Administration: U. S. Government, Bureau of Land Management, and various private individuals. The area here discussed has been recommended for inclusion in the proposed Fort Bowie National Historic Site.

Significance

Apache Pass has already been classified by the Advisory Board under "Military and Indian Affairs" as part of Fort Bowie. Because of its importance to the history of transcontinental transportation, however, it deserves mention in this study, also. Historical significance, historic remains, and unimpaired natural setting make Apache Pass a leading site for illustrating the history of the Butterfield Overland Mail.

A major avenue of cross-country emigration, freighting, and passenger and mail service crossed the Chiricahua Mountains at Apache Pass, drawn there by the water of Apache Spring. Foreshadowing Butterfield stagecoach service, James E. Birch in 1857 routed the coaches of the San Antonio-San Diego Mail through Apache Pass. This short-lived firm gave way the following year to the Butterfield Company, whose stages made the 2,795-mile run from the railhead town of Tipton, Missouri, to San Francisco in 25 days. Butterfield's engineers improved the emigrant trail through Apache Pass and built a stone relay station and corral just west of Apache Spring.

Like the emigrants before him, John Butterfield regarded Apache Pass as the most dangerous point on the entire line to the Pacific, for in these mountains lived the Chiricahua Apache followers of Cochise. Butterfield urged the Army to establish a military post in Apache Pass,
but not until after his stages moved to the northern route was Fort Bowie built. The Bascom episode in February 1861 justified his apprehensions. A military detachment under Lt. George N. Bascom attempted to arrest Cochise and precipitated an attack and siege of the stage station. An east-bound stagecoach was waylaid in the pass and forced to fight its way through to the station. An ambush prepared for a west-bound coach was thwarted only by the arrival of the stage ahead of schedule. The Indians withdrew upon the approach of more soldiers.

With outbreak of the Civil War the Butterfield line abandoned its southern route and adopted the Overland Route up the Platte Valley. After the war, however, stages ran by way of Apache Pass and Fort Bowie until the advent of the railroad in 1880.

Present Status

Stone foundations and a litter of rock rubble today mark the site of the Apache Pass stage station. It is located in a small triangular valley surrounded by mountains 700 yards west of Apache Spring and just north of the old Fort Bowie cemetery. The Butterfield Trail, in places quite evident and in others only faintly visible, may be followed from one end of the pass to the other. The historical setting remains intact, no modern features having encroached upon the landscape.

Apache Pass, Arizona. This panoramic view looks southwest towards the pass. Lt. John G. Parke's Railroad Survey party camped in this valley in 1854. Four years later the Butterfield Company's stage station was built here (X). Broken line shows the route of the Butterfield Trail.

N.P.S. Photo, 1959.
OAK GROVE BUTTERFIELD STAGE STATION, CALIFORNIA

Location: Oak Grove, San Diego County, on State Highway 79.
Ownership: Private

Significance

Oak Grove stage station is apparently the only station still standing on the entire route of the Butterfield Overland Mail Route which operated between San Francisco and two eastern termini, St. Louis, Missouri, and Memphis, Tennessee, from September 15, 1858 to March 2, 1861. Later, during the Civil War, the building was used as a hospital for Camp Wright, which occupied the ground on the east side of the present highway.

Condition of Site

The Oak Grove Stage Station is a well preserved one-story adobe building. The structure has been enlarged from time to time, but the northern end of it, now used as a residence, unquestionably belongs to the original ranchhouse that was erected in the 1850's. The remainder of the building is now utilized as a gas station and general store. The quaint, long rambling structure, standing in the shade of a magnificent grove of great live oaks that nearly surround it, still retains the atmosphere of old staging days. The site has been marked by the State of California as Registered Historical Landmark No. 502.

Oak Grove Butterfield Stage Station, San Diego County, California. This is the only original and intact Butterfield station still standing in the United States. View shows the rear adobe walls and northern end of the original portion of the building.

N.P.S. Photo, 1959.
BIG FOUR HOUSE, CALIFORNIA

Location:  220-226 K Street, Sacramento

Ownership:  Private

Significance

Built by Leland Stanford, Collis P. Huntington, and Mark Hopkins in 1852 as their stores, this building (originally three separate structures) became the first general offices of the Central Pacific Railroad. Here the "Big Four" - Huntington, Stanford, Hopkins and Charles Crocker, assisted by the engineer Theodore Judah, planned, financed, and built the western end (California to Utah) of the first transcontinental railway. Here also the "Big Four" obtained control of the Southern Pacific Railroad and began the construction of that line to Southern California. The structure served as the general offices of the Central Pacific until 1873, when they were transferred to San Francisco.

Condition of Site

The two story brick building now situated at 220-226 K Street incorporates into one enlarged structure what were two separate properties and three separate buildings prior to 1878, namely, (1) the Stanford Brothers Store structure to the east, now Nos. 224 and 226, and (2) the two Huntington and Hopkins buildings to the west, now Nos. 220 and 222. The original office of the Central Pacific Railroad Company was located at what is now 224 K Street, and as soon as business expanded, the office space was enlarged by cutting through walls into the buildings at 220 and 222 K Street. These buildings served as the general offices of the company from 1862 to 1873.
N.P.S. Photo, 1960.
In 1878, the three structures were remodeled and combined into one large building by Huntington and Crocker. The present structure, in its exterior appearance, therefore dates from 1878 and little resembles the three structures that stood there before 1877. The present building has been further remodeled on the exterior since 1878, but the basic features of 1878 building are still essentially intact. The Big Four House has been marked by the State of California as Registered Historical Landmark No. 600.

The building is located in a very rundown portion of Sacramento that is scheduled for redevelopment in the near future. Historians of the Division of Beaches and Parks of the State of California have conducted careful research in documentary sources and have amassed considerable visual and written evidence that would make possible the accurate restoration of the exterior of this building to the 1862-1877 appearance. Plans have been advanced by the State recommending the restoration and preservation of the Big Four House.

Located two blocks south of the Big Four House, at the corner of 4th and I Streets, adjacent to the Southern Pacific Depot, is the Judah Monument. This splendid monument of granite boulders was erected in 1930 by the employees of the Southern Pacific Company to the memory of Theodore Dehone Judah, the first engineer of the Central Pacific and the tireless advocate of the great transcontinental railroad.

Situated on Second Street, between K and J Streets, near the Big Four House, are the original buildings of the Pony Express, Overland Stage, and the first transcontinental telegraph companies.
Judah Monument, 4th and I Streets, Sacramento, California, erected in 1930 by the employees of the Southern Pacific to the memory of Theodore Dehone Judah, first engineer of the Central Pacific and tireless advocate of a railroad to the Pacific.

N.P.S. Photo, 1960.
PONY EXPRESS TERMINAL (B.F. HASTINGS BUILDING), CALIFORNIA

Location: 1006 Second Street, Sacramento

Ownership: Private

Significance

This building served as the original western terminal of the Pony Express from April, 1860 to March, 1861, and also as the office, 1853-1863, of the California State Telegraph Company, which helped to construct the first transcontinental telegraph line in 1860-61.

The two story brick building, erected in 1853, was occupied by B. F. Hastings and Co., the State Library, the State Supreme Court, and Wells, Fargo and Co. In 1858 Wells, Fargo moved out of the south portion of the structure and this section was at once occupied by the Alta Telegraph Company. This latter company, reorganized in July, 1860 as the California State Telegraph Company, served as the Sacramento agent of Russell, Majors, and Waddell's Pony Express from April 1860 to March 1861.

While the facade of the Hastings building has undergone considerable change with the passage of years, the basic structure is still intact and can be readily identified when compared with early pictures of the structure. The building has been marked by the State of California as Registered Historical Landmark No. 606.

Situated just north of the Hastings Building, at 1014 Second Street, is the Adams and Company Building, marked as California Registered Historical Landmark No. 607. This three-story brick structure was the second and final Sacramento terminal of the Pony Express from March, 1861 to October, 1861, the period when the Express was conducted.
by the Butterfield Overland Mail Company and Wells, Fargo, and Company. Although some details have disappeared, the Adams Building still retains essentially the exterior lines of the original structure.

The Hastings and Adams buildings are the only two structures associated with the Pony Express and Overland Mail that are still standing in California.

Located across the street from the Hastings Building, at 1015 Second Street, is the "Pioneer Telegraph Building," California Registered Historical Landmark No. 366. This two-story brick building served as the telegraph office of the California State Telegraph Company from 1863 to 1868, and of Western Union Telegraph Company from 1868 to 1915.

**Condition of the Site**

These buildings are located in a very rundown portion of the city that is scheduled for redevelopment in the near future. As in the case of the Big Four House, historians of the Division of Beaches and Parks of the State of California have completed careful research studies on the physical histories of these three buildings. Plans have also been advanced by the State recommending the preservation and restoration of the Hastings, Adams and Company, and the "Pioneer Telegraph" buildings.

Pony Express Terminal, 1006 2nd Street, Sacramento, California. The south (left) section of the two-story building was the original western terminal of the Pony Express from April, 1860 to March, 1861. It was also the 1858-1863 office of the California State Telegraph Company, which assisted in building the first transcontinental telegraph line.
Location: From Durango to Silverton, Colorado.

Ownership: Denver, Rio Grande Western Railroad, Denver, Colorado

Significance

The 45 mile Durango-Silverton stretch of the Denver & Rio Grande is one of the few surviving sections of narrow gauge railroads in the United States. The narrow gauge, particularly the Denver & Rio Grande, played an important role in the development of the Rocky Mountain area.

Lucius Beebe and Charles Clegg, well-known railroad authorities, recently described the Durango-Silverton line of the D&RGW:

On none of the Rio Grande's narrow gauge runs was romance more conspicuously part of the conductor's wheel report than the still-operating forty-five mile Silverton branch. So strong a hold did the route above the yawning Canyon of Animas River (named the Rio de los Animas Perdidas a full century earlier by good Father Escalante), have on the popular imagination of nearly three full generations of Western and railroad minded Americans that passenger service over its forty-five miles of breath-taking right of way survived when all other narrow gauge passenger routes were abandoned. As this is being written in the year 1958, the Silverton Train is the only regularly scheduled narrow gauge passenger operation anywhere in the United States and, as a tourist attraction, it is a predominant factor in the vital economy of both Durango and Silverton.*

The Durango-Silverton line was completed in 1882 when the Silverton area was experiencing its greatest mining boom. In that year, Silverton reached its highest production of $20,000,000 in silver ore. Much of the silver and gold produced in the Silverton area from 1882 to 1917, found its outlet over this railroad.

The narrow gauge railroad played a significant part in the history of the country. In 1889, about the time when railroad development
was at its height, there were 274 railroads out of a total of 1,675 in the
United States operating on tracks less than standard gauge. Of these
there were 234 companies or 6% of the total railroads in the country
operating 9,486 miles of narrow gauge railroads of a total of 157,759
miles in the country.

To the railroad builders in the mountains, the narrow gauge
railroads offered very definite advantages. They were cheaper inasmuch
as they could be constructed on much narrower grade than the broad gauge.
These railroads could also operate more efficiently on sharp curves neces­
sitated by a rugged terrain without sacrificing safety. For these reasons
they were suitable in the mountains where railroad building was very
expensive.

**Condition of Site**

This railroad operates on much of the same grade as when con­
structed. Much of the equipment used on this line is of the late 19th
century. The country through which the Durango-Silverton road passes
is relatively unspoiled.

**References:** *Lucius Beebe and Charles Clegg, Narrow Gauge in
the Rockies* (Berkeley, 1958), 26; See also *Second Annual Report on the
Statistics of Railways in the United States, 1889* (Washington, 1890);
Louie Hunt, *The Silverton Train: The Story of Southwestern Colorado's
Scenic view of Las Animos Canyon on the Denver and Rio Grande Railroad between Durango and Silverton, Colorado.

N.P.S. Photo, 1958.
Grenville M. Dodge House

Location: 605 South 3rd Street, Council Bluffs, Iowa

Ownership: F. L. Taylor, same address

Significance

This building was the home of Grenville Mellen Dodge, well-known railroad builder and politician. Among the prominent people who were entertained in the Dodge home were General U. S. Grant, Theodore Roosevelt, Warren G. Harding, William McKinley, General William T. Sherman, General John A. Logan, General John C. Black and Archbishop John Ireland.

This 14 room mansion was constructed in 1869 or 1870 at a cost of $35,000. At the time it was completed, it was described as "one of the most beautiful homes in the state."* When it passed out of the hands of the Dodge Estate in 1950, it was described as "one of the finest examples of Victorian Architecture in this section of the country."**

Born in Danver, Massachusetts on April 12, 1831, Dodge became one of the nation's foremost railroad builders. In 1852, soon after receiving a diploma as a military and civil engineer the preceding year, he was given a position with an engineering party on the Illinois Central Railroad. For several years he was engaged in making surveys for various railroads across Iowa. From 1855 to 1861, Dodge was engaged in railroad construction in Iowa, in mercantile business in Council Bluffs, helped organize a bank and made some reconnaissances and surveys west of the Missouri River.

When the Civil War broke out, Dodge volunteered his services. His war services, both as a soldier and engineer, were distinguished.
For his skill in building bridges and reconstructing and equipping railroads for the army, he was highly commended by General Grant.

In 1866, Dodge was made chief engineer of the Union Pacific which was then under construction and it was under his general supervision that the first transcontinental railroad was completed four years later. In 1870, he resigned as chief engineer. The following year he became chief engineer of the Texas and Pacific. When that road failed during the Panic of 1873, he joined Jay Gould in the railroad development in the Southwest. During the next ten years he assisted in the building and consolidation of nearly nine thousand miles of road. In the late 1860's, he was interested in the construction of the Denver, Texas and Fort Worth, and the Denver, Texas and Gulf. He was president of the Union Pacific, Denver and Gulf when that system went into bankruptcy in 1892.

Dodge ranks as one of the great railroad builders of the world. His railroad surveys alone totaled approximately 60,000 miles. He was for half a century an active railroad projector, builder, director, and financier and was reputed to be the ablest railway lobbyist of all time. He was very active politically in Republican circles. Dodge died in 1916.

**Condition of Building**

The external features of the building appear to be unchanged. However, the interior has undergone alterations, the structure having been converted into an apartment house.

Grenville M. Dodge House, Council Bluffs, Iowa, which was occupied by General Dodge from 1870 until his death in 1916. Camera pointing to the northeast.
COTTONWOOD PONY EXPRESS STATION

Location: Near Hanover, Kansas

Ownership: State of Kansas and administered by the Kansas State Historical Society

Significance

The Pony Express Station at Hanover, Kansas, is claimed to be "the only unmoved and unaltered Pony Express Station that survives."*

Known as the Cottonwood Station, this place was an important stop on the Oregon-California Trail. It served as a relay station for both the Overland Mail and the Pony Express. The owner of the station also supplied overland travelers with horses and cattle for replacements.

The station was built in 1857 by George Hollenberg as a ranch operation. Here the owner cleared the land and broke the ground and put in the crops.

The building served as a post office, hostelry, and supply station for thousands of emigrants who traveled the trail. It was equipped with a bar which quenched their thirst. When General Albert Sidney Johnston made his historic march against the Mormons, he stopped at the station. In 1860, the place became a stage station.

The Pony Express Station comprised a store, post office, kitchen, dining room and bedroom which was occupied by Hollenberg and his family. The six employees stationed at the place, the Pony Express riders and stage drivers, slept in the attic which extended the full length of the building.
Condition of Building

This structure, in good condition, appears to be little changed.

Hollenberg Pony Express Station, Kansas, built in 1857. This structure is claimed to be the only original and unaltered Pony Express site in the United States. Camera pointing to the North West.

JAMES J. HILL HOUSE

Location: 240 Summit Avenue, St. Paul, Minnesota

Ownership: St. Paul Diocesan Teachers College, St. Paul, Minnesota

Significance

Erected in 1889, at a purported cost of $200,000, this 32 room house was the home of James Jerome Hill, the "empire builder" of the Northwest. This mansion was one of the showplaces of St. Paul, and was Hill's home until his death in 1916.

Hill was not only one of the nation's great railroad builders but was a financial leader as well. Born in Ontario, Canada, in 1838, he began work at the age of 14 in a country store. In 1856, he went to St. Paul which was at that time a town of about 5,000 inhabitants and early became interested in the trading business. In 1865, he became agent of the Northwestern Packet Co. Ten years later he organized the Northwestern Fuel Company. In 1878, he gave his major attention to the transportation on the Red River to Fort Garry (now Winnipeg). In that year Hill and several others purchased the St. Paul and Pacific Railroad. Under his leadership, this railroad, under the name of St. Paul, Minneapolis & Manitoba, extended its line to the Pacific. He then organized, for construction purposes, other railroads in the Northwest. In 1890, all of the Hill-controlled railroads were combined under one corporate unit as the Great Northern Railway Company. Hill served first as general manager of the system, 1879-1881; vice president, 1881-1882; president, 1882-1907; and chairman of the board, 1907-1912.
Although the Hill system did not receive a federal land subsidy, unlike the other railroads at that time, it succeeded in weathering all the financial storms. It was conservatively financed.

When the Northern Pacific went into receivership for the second time in 1893, the Great Northern then acquired control of that road. The Great Northern also bought 97 percent of the stock of the Chicago, Burlington & Quincy. When Hill, in 1901, endeavored to combine his interests, together with those of the Northern Pacific, the Chicago, Burlington & Quincy, and the Great Northern under the Northern Securities Company, the United States Supreme Court declared it to be in violation of the Sherman Anti-Trust Law.

**Condition of Building**

The external features of the James J. Hill House remain unchanged. However, the interior has been remodeled for use by the St. Paul Diocesan Teachers College.

PATEE HOUSE, MISSOURI

Location: 12th and Penn Streets, St. Joseph, Missouri

Ownership: Owned by the Sun Manufacturing Company

Significance

When completed in 1858, the Patee House in St. Joseph, was one of the finest hotels west of the Mississippi. It served as the headquarters for Russell, Majors, and Waddell in 1860 which operated the short-lived Pony Express which ran from St. Joseph, Missouri to Sacramento, California. Many of the riders stayed at the hotel. It was on the street in front of this hotel that a cannon was fired when the Pony Express was inaugurated on April 3, 1860.

When built, by John Patee, the hotel was one of the marvels of the time. Erected at the cost of $200,000, it was the chief way-point between the East and West. Arthur Chapman described the Patee House as follows in The Pony Express:

Many distinguished guests of stage-coach days put up at the Patee House, notwithstanding. For the east-bound it afforded the first glorious plunge into the luxuries which the "States" possessed and the frontier lacked. For those bound west, it afforded a farewell revelry in such luxuries. William H. Russell and Alexander Majors were familiar figures about the Patee House when they were establishing their stage line and later the Pony Express. Richard F. Burton, keen to penetrate the mysteries of Mormondom; Horace Greeley and the correspondent Albert D. Richardson, intent on "writing up" the Colorado gold camps; adventurers headed for the distant excitements of Washoe; sportsmen who wanted to shoot buffaloes and perhaps have a not-too-dangerous brush with Indians—such figures gave the corridors of the Patee House something more than local swank.*

Unfortunately, the location of the Patee House doomed it from the start. The principal business section of St. Joseph grew up a
considerable distance from the hotel than originally anticipated. The hotel was a financial failure from the start. Since it was constructed, the building has passed through many hands and has been used for many various purposes. It last served as a shirt factory.

**Condition of Building**

The external appearance of this building is little changed. However, the interior has been subject to many alterations. The building is currently vacant.

Patee House, 12th and Penn Streets, St. Joseph, Missouri. This building served as headquarters for Russell, Majors, and Waddell, who inaugurated the Pony Express in 1860. Camera pointing to the North East.
FORT BENTON, MONTANA

Ownership and Administration: In private ownership. The remains of the fort itself is in city ownership.

Significance:

The town of Fort Benton had its heyday in the late 1860's, the 1870's, and the early 1880's. During that period it was the head of navigation on the Missouri River. The town was the chief distributing point for the Northern Plains. During the steamboat era, freight was transported by ox teams to the gold mines at Virginia City, Bannack, Helena, and to points in Idaho.

As pointed out by Dr. Paul Sharp in his Whoop-Up Country:

Fort Benton in the post-Civil War years was the hub of an overland transportation network radiating as spokes in a giant wheel to the busy gold fields along the circumference of North American civilization. Through the treeless, dusty streets of this frontier village moved the commerce of the continental heartland.

Fort Lewis, later known as Fort Benton, was established on the site of the present town in 1847 by Alexander Culbertson, the famous fur trader. In 1850, the name was formally changed to Fort Benton. It soon became the most important fur trading establishment in Montana.

Soon after the arrival of the first steamboat, The Chippewa, in 1859, a new era for Fort Benton began. With the discovery of gold in Montana in 1862, a rush of miners to the region began. Since many of the overland routes to the mines were closed due to the Indian difficulties, many from the East passed up the Missouri by steamboat to Fort Benton and traveled overland to Bannack, Virginia City, and other points within the interior. At times there were as many as thirty and forty
steamboats on the river between Fort Benton and the mouth of the Yellowstone.

With the invasion of the free traders in the late 1860's, the monopoly of the Indian trade so long held by the American Fur Company and the Hudson's Bay Company, ended. With the support of such merchants as I. G. Baker, T. C. Power and William G. Conrad, these traders established a trade empire, centering at Fort Benton, over the northwestern United States and western Canada.

The Montana gold rush and Indian trade combined, greatly increased the Missouri River traffic. In 1868, total shipments valued at $1,270,000 were shipped down the river from Fort Benton and $1,394,000 shipped up the Missouri to that town.

With the coming of the railroads, the town of Fort Benton and the river traffic rapidly declined. In 1887, the year which the James J. Hill interests and the Montana Central Railway completed their lines to Fort Benton, there were 21 steamboat arrivals; in the following year there were only three.

Remains

Very little remains of the Fort Benton of the 1860's and 1870's. A blockhouse and a portion of the adobe walls still stand. The riverfront, along which the steamboats once docked and unloaded their cargoes, seems to be unchanged.

FORT CHURCHILL, NEVADA

Location: Lyon County, on U.S. 95 (alternate), eight miles south of its junction with U.S. 50.

Ownership: Nevada State Park Commission.

Significance

Fort Churchill served as an important post, from 1860-67, guarding the Central Overland Mail Stages, the Pony Express, and the line of the first transcontinental telegraph. Construction of the western section (California to Utah) of the first telegraph line began at Fort Churchill on May 27, 1861. From 1861 to 1865 Fort Churchill also served as the main headquarters of all military posts in Nevada.

In the fall of 1859 Samuel S. Buckland built a "good sized cabin" on the bank of the Carson River, located adjacent to the future site of Fort Churchill, which served as a stage station on the Central Overland Mail Route. In April, 1860, Buckland's Station also became a "home station" on the newly instituted Pony Express run. On May 7, 1860, the Pahute War began with the Indians attacking the J. O. Williams Station, which was located about 10 miles to the northeast of Buckland's Station. Five white men were killed and Williams Station was burned to the ground. On May 12 the Indians also defeated a pursuing force in the battle of Pyramid Lake, thereby throwing the settlers at Genoa, Carson City, Silver City and Virginia City into a frenzy of fear. For four weeks the hostilities completely halted all stage and Pony Express service over the western end of the Central Overland Mail Route. Finally, on June 3, a second battle was fought and the Indians were defeated.
As a direct result of this bitter warfare, Fort Churchill was established on July 20, 1860 by the United States Government for the purpose of overawing the Indians and of guarding the stage, mail, and Pony Express route. This mission the post successfully accomplished and there was no further trouble with Indians in Carson Valley from 1860 to 1869.

Construction of Fort Churchill began in 1860 and until 1861, was garrisoned by three or four companies of regular army troops. With the outbreak of the Civil War, the regulars were withdrawn and replaced by California and Nevada Volunteers, who, numbering between 400 and 700 men, considerably enlarged the fort and garrisoned the post until the end of the war.

The fort, as finally completed, was built on a large scale in the form of a quadrangle and occupied a military reservation containing 138½ acres. On the north side of the quadrangle were the officers quarters to the west were the offices, the quartermaster's buildings, hospital, carpenter's shop, bake house and blacksmith shop, and on the south side were the guard house, magazine, storehouse and stables. These structures were largely build of adobe.

From 1861 to 1865 the fort served as the main headquarters of all military posts in Nevada, as the depot for State Ordnance, and from here troops were dispatched to put down the frequent Indian uprisings that occurred in eastern and northern parts of Nevada.

On August 15, 1865 regular army troops returned to Fort Churchill and relieved the Volunteers. In 1867, the garrison was reduced to one company of regulars and the post was finally abandoned in March, 1870.
Condition of Site

After abandonment of the fort, the buildings were sold at auction and all materials of value were removed. The adobe structures gradually dissolved, until by 1930, the original walls stood only two or three feet above the ground. In 1935, after first conducting careful historical research and archeological excavation, under the supervision of the National Park Service, a force of CCC laborers reconstructed in an authentic manner a number of the adobe buildings on the original foundations. Today only the ruined walls of some 15 of these reconstructed structures remain, forming a rough quadrangle about 500 by 300 feet. A frame building intended to serve as a museum and quarters for a custodian is located a short distance to the east of the fort. Apparently no regular care or maintenance is given Fort Churchill which is now a Nevada State Park.

Fort Churchill, Nevada. Established July 20, 1860 to overawe the Indians and protect the Overland Stage, Pony Express, and transcontinental telegraph lines. This fort was the headquarters of all military operations in Nevada, 1861-67. Trees line the banks of the Casson River, to the south of the fort.
EGAN CANYON, NEVADA

Location: White Pine County, 41 miles north of Ely and 11 miles west of U.S. 93 and alternate U.S. 50 (three miles south of Cherry Creek, Nevada 35).

Ownership: Private and Federal

Significance

Egan Canyon, from 1859 to 1869, was a particularly critical and dangerous post on the Central Overland Mail Route. The steep and winding road through this narrow and deep canyon offered an ideal spot for Indian ambushes, and the important pass was a point that could not be by-passed by following a less vulnerable route. With the outbreak of Indian hostilities in Nevada in 1860, Egan Canyon became the scene of some of the most harrowing rides of the Pony Express.

The Canyon was "discovered" in 1855 by Howard Egan, a superintendent on Chorpenning's California-Utah mail line. In 1858-59 Captain James H. Simpson, of U.S. Topographical Engineers, surveyed Egan Canyon and discovered a new route feasible for stage coach use leading across Nevada to Genoa. On Simpson's advice, Chorpenning changed the route of his mail stages to this road in 1859, thereby shortening the distance to California by nearly 300 miles. The new route was immediately improved, and stage stations, including one at Egan's Canyon, were erected along the new road. In 1860 these improvements, together with Chorpenning's mail contract, were acquired by Russell, Majors, and Waddell. The stages of their Central Overland California & Pikes' Peak Express Company and also the riders of their Pony Express utilized the route through Egan Canyon. The pass was later used by Butterfield Overland Mail Company stages, when
that firm shifted its operations from the Southern to the Central Overland Mail Route in 1861. Egan Canyon continued to serve as an important point on the Central Overland Stage run until 1869, when the days of transcontinental staging came to an end.

In the 1860's Egan Canyon was the scene of numerous Indian forays on the stage and Pony Express lines. The United States Government found it necessary to station troops at Schell Creek (or Fort Schellbourne), 14 miles to the east, in an effort to keep the Egan Canyon section of the route open during the Civil War period.

Condition of Site

The Egan Mountain Range lies about 11 miles west of and parallel to U. S. Route 93 and alternate 50. The approach to the canyon is over the level valley floor from the east. The mouth of the canyon is not evident until one has reached the very foot of these abruptly rising mountains. The dirt road, only slightly better than the original stage road, then winds up through the narrow, dark, and forbidding canyon for about one mile. The ascent is steep; the road twice fords a small but swiftly running stream, and the canyon walls, jutted with hundreds of rock outcroppings, rise steeply on each side of the road. The canyon is still a perfect spot for an ambush. About halfway up the canyon, on the left side of the road is a small mine and to the right are three small frame buildings. All are boarded up and appear not to have been used recently.

At the upper end of the canyon the road emerges out into a magnificent mountain valley. Surrounded on all sides by majestic and
silent mountains, these convey an impression of utter loneliness. The Egan Canyon Stage Station was located on the far side of this valley, along the bank of the small stream that meanders across the valley floor. Traces of the station are reported to be still evident, but the writer was not able to locate them during his brief visit. The only sign of man in the valley today, other than the road, is a small, empty, wooden shed, probably associated with ranching activities. Except for the mine and shed, the canyon and valley are as wild and lonely as they must have been in 1860-69.

The Pony Express and stage road then proceeds over the rolling valley floor to the northwest for about six miles, degenerating rapidly in its course into a deep rutted and sandy trail, the original tracks of the early stages. One should not proceed beyond this point unless properly equipped for desert travel and riding on horseback or in a jeep.

The original trail then leaves the valley by means of a mountain pass and proceeds across completely uninhabited and extremely beautiful desert country 35 miles to the northwest passing en route the sites of Butte Station and Mountain Springs Station, and finally emerging in Ruby Valley.¹

¹The writer was not properly equipped to traverse the trail from Egan Canyon to Ruby Valley and was therefore unable to view this section. The statement in the text is therefore based on the statement of Mr. Earl Guyton of Reno, Nevada. Mr. Guyton has made several trips over the entire length of the original route across Nevada and personally supervised the marking of that trail for the Nevada Pony Express Centennial Commission.
1876); Richard F. Burton, City of Saints (London, 1861); William M. Egan, Pioneering the West, 1846-1876 (Richmond, Utah, 1917); LeRoy R. Hafen, The Overland Mail, 1849-1869 (Cleveland, 1926); Raymond W. Settle and Mary L. Settle, Saddles and Spurs, The Pony Express Saga (Harrisburg, Pa., 1955); Roy S. Bloss, Pony Express - The Great Gamble (Berkeley, 1959); W. Turrentine Jackson, Wagon Roads West, 1846-1869 (Berkeley, 1952); William H. Goetzmann, Army Explorations in the American West, 1803-1863 (New Haven, 1959); Thompson and West, History of Nevada, 1881, with introduction by David F. Myrick (Berkeley, 1958); Nevada Pony Express Map, 1860-1960 (published by the Nevada Pony Express Centennial Committee, Carson City, Nevada, 1960).
Egan Mountain Valley, Nevada. View is taken from the upper end of Egan Canyon looking west. The small abandoned shed to the left is probably situated near the original site of the Overland Stage and Pony Express station. The original trail winds across the valley to the north west (right of photo).

N.P.S. Photo, 1960.
Location: White Pine County, about 71 miles southeast of Elko, and at the southern end of Ruby Valley

Ownership: Private and Federal

Significance

Ruby Valley, from 1859 to 1869, was an important station on the Pony Express and Central Overland Stage line, a relay station on the first transcontinental telegraph line, and the site of Fort (or Camp) Ruby, a military post established during the Civil War to protect the stage and telegraph facilities from Indian attacks. Ruby Valley was also the site of the Overland Stage Ranch, 1865-69. Established for the purpose of supplying the transcontinental stage line with grain and provisions, their effort was the first experiment and the beginning of farming in eastern Nevada.

Ruby Valley lies to the east of the beautiful Ruby Mountains, and is about 70 miles in length by about 16 in width. The first white settler, William Rogers, an assistant Indian agent, arrived in the valley in 1859 and erected a cabin near the southern end. His log house became a stage station on the Central Overland Mail Route and then also a "home" station for the Pony Express. In 1861 a telegraph station on the first transcontinental telegraph line was also erected. In the fall of 1862 Fort (or Camp) Ruby was established about three miles east of the stage station for the purpose of protecting the stage and telegraph lines. Two companies of California Volunteers were posted at the Fort and patrolled the lines. These troops engaged in several lively skirmishes before the
Fort Ruby, Ruby Valley, Nevada, 1862-1869. Log building to left is the original cabin, and in center stands the original Post Office. Ruby Mountains rise in distance to northwest.

N.P.S. Photo, 1960.
end of the Goshute War in 1863, for both the Goshute and Pahute Indians were on the warpath, and directed their attacks chiefly against the stations of the Overland Mail. In 1864 Nevada Volunteers took over the post and garrisoned the Camp until 1869, when the site was abandoned and transcontinental staging came to an end.

By 1865 the Overland Stage Company, tired of paying high prices for grain and farm produce in the Salt Lake Valley of Utah, established the Overland Stage Ranch about 23 miles north of Fort Ruby. In the spring of that year they employed 100 men, 30 plows, 90 yokes of oxen, and sowed 90,000 pounds of grain. As a result they harvested 8,575 bushels of barley, 8,745 bushels of oats, 1,655 bushels of potatoes, 1,854 bushels of turnips, 1,000 bushels of carrots, and 78 bushels of beets. The ranch continued its successful farming operations through 1869 and succeeded in supplying a large portion of the requirements of the Overland Stage Company.

Condition of Sites

Fort (or Camp) Ruby is now located on the Fort Ruby Ranch, which is situated eight miles south of Cave Creek, or 18 miles south of the Harrison Pass over the Ruby Mountains. Two original structures of the old post still stand on the ranch. These two one-story log buildings are the Post Office and cabin or residence, and situated adjacent to the more modern ranch structures. Both buildings are in excellent condition.

The site of the Overland Stage and Pony Express station is located about three miles east of the Fort Ruby Ranch and building site has been marked by the U.S. Forest Service, of the U. S. Department of
Agriculture. The reputed remains of the original log station were re­
moved by citizens of Elko from this site in 1960 and re-erected in their
town as a Pony Express Station as part of the centennial observances.

The site of the Overland Stage Ranch is located approximately
23.6 miles north of the Fort Ruby Ranch, or 5.6 miles north of Harrison
Pass. There are no apparent remains of the original ranch and the site
is not marked.

The Overland Stage and Pony Express Route, coming from Egan
Canyon, enters Ruby Valley at the southeast corner, crosses the southern
end, and leaves the valley at the southwest corner, via the 6789 foot high
Overland Pass. The original trail then continues westward, roughly paral­
leling U.S. Highway 50, across utterly wild and very sparsely inhabited
country for approximately 156 miles, until it joins U.S. 50 just west of
Eastgate, Nevada. This section of the route, which is passable only on
horseback or jeep, is also very beautiful and the trail and station sites
are untouched.\(^1\)

It thus appears that there is today a 195 mile section of
original Pony Express and Overland Stage Route (from Egan Canyon to
Eastgate) in Nevada that is virtually unimpaired and as wild and beauti­
ful as it was in 1859-69.

Site Documentation: James H. Simpson, Report of Explorations
across the great Basin of the Territory of Utah for a Direct Wagon-
Route from Camp Floyd to Genoa, in Carson Valley, in 1859 (Washington,

\(^1\)This information is based on statements of Mr. Earl Guyton of
Reno, Nevada, who supervised the marking of the Pony Express trail across
the State of Nevada.
Ruby Valley, Nevada. Panoramic view from south end of the valley looking north. Left, at base of Ruby Mountains by clump of large trees, is Fort Ruby. Center, Lake Ruby.

N.P.S. Photo, 1960.
1876); Richard F. Burton, City of Saints (London, 1861); William M. Egan, Pioneering the West, 1846-1873 (Richmond, Utah, 1917); Thompson and West, History of Nevada, 1861, with Introduction by David F. Myrick (Berkeley, 1958); LeRoy R. Hafen, The Overland Mail, 1849-1869 (Cleveland, 1926); Raymond W. Settle and Mary L. Settle, Saddles and Spurs, The Pony Express Saga (Harrisburg, Pa., 1955); Roy S. Bloss, Pony Express - The Great Gamble (Berkeley, 1959); W. Turrentine Jackson, Wagon Roads West, 1846-1869, (Berkeley, 1952); William H. Goetzmann, Army Exploration in the American West, 1803-1863 (New Haven, 1959); Nevada Pony Express Map, 1860-1960 (published by the Nevada Pony Express Centennial Committee, Carson City, Nevada, 1960); Roscoe Conkling and Margaret B. Conkling, The Butterfield Overland Mail Company, 1858-1869 (3 Vols., Gendale, 1946)
PROMONTORY SUMMIT, UTAH

Location: Box Elder County, Utah, 25 miles west or Corinne.

Ownership and Administration: Owned by the Southern Pacific Railroad and various private individuals. A fraction of an acre including the monument, designated the Golden Spike National Historic Site, is administered by the Golden Spike Association of Box Elder County, in cooperation with the Southern Pacific Railroad, the Utah State Historical Society, and the National Park Service.

Significance

The ceremony performed at Promontory Summit on May 10, 1869, united the Union Pacific and Central Pacific Railroads to span the continent with its first means of rapid transportation. The driving of the last spike had enormous historical meaning. It gave added reality to the decision of the Civil War that the Union was indissoluble. Since the Mexican War East and West had been geographic and economic entities tenuously joined across an unsettled wilderness by political and emotional ties. The Pacific railroad was a tangible bond that insured the continental development of the United States. It made possible the rapid movement of passengers and freight from coast to coast, vastly facilitating commercial intercourse between East and West and between the United States and the Orient. It accelerated the conquest of the Indians by providing mobility to the frontier army and bringing settlement and economic development to the central plains and Great Basin. And it presaged a rapidly spreading network of railroads that soon carried civilization to other regions of the West. The Pacific railroad made the first serious and permanent breech in the continental frontier and
established the process by which the entire frontier was to be demolished. Completion of the railroad was one of the most significant events in American history. As the site where the last spike was driven, Promontory Summit illustrates the historical meaning and portrays the dramatic construction story of the first railroad linking East with West.

A transcontinental railroad had long been the dream of visionary thinkers, but the acquisition of California in 1846 and the discovery of gold there in 1848 made such a road imperative. Military surveying parties during the 1850's investigated five proposed routes, but the controversy between North and South prevented selection of one until the outbreak of Civil War removed proponents of a southern route and underscored the urgency of the project. In 1862 Congress passed the Pacific Railroad Act authorizing the Union Pacific and Central Pacific Railroads to begin work and providing subsidies and land grants as a spur to construction. Not until the close of the war, however, did men, supplies, and money become available in sufficient quantities to permit significant advances.

Guiding the energies of the Central Pacific were the "Big Four," Mark Hopkins, C. P. Huntington, Charles Crocker, and Leland Stanford. Behind the Union Pacific were its Chief Engineer, Grenville M. Dodge,

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1The role of the Pacific Railroad in destroying the frontier is brought out in Frederick L. Paxson, "The Pacific Railroads and the Disappearance of the Frontier in America," Annual Report of the American Historical Association, 1907, I, 110, which should be read in conjunction with Frederick Jackson Turner, "The Significance of the Frontier in American History," Ibid., 1893.
Oakes and Oliver Ames, and Thomas C. Durant. The Central Pacific pushed east from Sacramento, across the Sierra, and into Nevada. The Union Pacific built west from Council Bluffs, up the Platte, and across the Wasatch Mountains. As the rails approached each other, both companies raced for the rich prize of the Great Basin market plus the subsidies and land grants earned with each additional mile. The Union Pacific won the race, reaching the key city of Ogden in March 1869 and moving west along the north shore of Great Salt Lake. Grading crews of the two companies met but continued to lay grades parallel to each other. Finally the Central and Union agreed, and Congress concurred, to join the rails at Promontory Summit, the Central to buy the Union's rails from the summit into Ogden.

On May 10, 1869, with locomotives of each company facing each other across the gap between railheads, 500 to 600 spectators gathered to watch the driving of the last spike. Using two gold spikes, a silver spike, a spike of gold, silver, and iron, a silver-plated sledge, and a polished laurel tie, officials of the two companies performed the ceremony of uniting the rails and opening the road to cross-country traffic. At 12:47 p.m. the last spike was driven. Shortly afterward, as the nation celebrated, the telegraph carried a message to Washington: "General U.S. Grant, President of the U. S., Washington, D. C. Sir: We have the honor to report that the last rail is laid and the last spike driven. The Pacific Railroad is finished."  

Present Status

The site of the last spike ceremony lies in a circular basin at the summit of a pass separating the Promontory Mountains from the North Promontory Mountains. A concrete monument erected by the Southern Pacific Railroad about 1915 marks the spot. It bears a National Historic Site plaque placed by the National Park Service in 1958.

The Promontory line was abandoned in 1900 with completion of the Lucin Cutoff across Great Salt Lake and the rails removed in 1942. For the entire distance of 23 miles across the Promontory Mountains, however, parallel grades of the Central Pacific and Union Pacific, laid by competing crews before the point of junction had been fixed, may be followed. On the east slope are impressive remains: prominent grades, six pairs of parallel rock cuts, two pairs of trestle footings, and two large earth fills. They illustrate every type of heavy work encountered by the railroad builders except tunneling. West of the monument the remains, while still much in evidence, are not as spectacular. They include, however, a stretch of Central Pacific grade on which construction gangs set a record by laying 10 miles of track in one day, April 28, 1869. The natural setting throughout this area remains virtually unimpaired. Rock foundations of some grading camp dugouts survive on the plain at the base of the east slope.

Promontory Summit, Utah. This monument was erected by the Southern Pacific Railroad about 1915 to mark the site where the last spike was driven in the first transcontinental railroad to the Pacific.
During its early years as a military post, Fort Laramie played an important role in transportation and communication of the Central Plains region. Beginning in 1850, the mail route extending from the east to Salt Lake City operated through Fort Laramie. This was later extended to California. When the Pony Express was inaugurated ten years later, the fort was made one of the stations. When the first transcontinental telegraph was built across the nation, the military post was one of the stations. Likewise this establishment became a stopping point and station on the Overland Stage route. However, with the coming of the railroad its importance as a transportation site declined.

JEFFERSON NATIONAL EXPANSION MEMORIAL HISTORIC SITE

Jefferson National Expansion Memorial Historic Site, in St. Louis, Missouri, was established to tell the story of westward expansion. Recognized as a "Gateway to the West," St. Louis was the hub of a gigantic water and rail transportation system. Situated near the confluence of the Missouri and the Mississippi Rivers, it was one of the key ports in the navigation system of both rivers. When railroads became an important part of the economy of the nation, St. Louis likewise developed into an important railroad center. Both a river and railroad museum at Jefferson National Expansion Memorial Historic Site will tell the story of the role of the city in transportation in the trans-Mississippi West.
OTHER SITES CONSIDERED IN THE SURVEY

(The list which follows includes sites which are of considerable interest but which do not meet the criteria for national significance.)

CALIFORNIA

Vallecito State Station: The site of the Butterfield Vallecito ("Little Valley") Stage station is located in San Diego County, just outside of the California Anza-Borrego Desert State Park. The original sod house station has crumbled away and a replica of the structure was reconstructed in 1934, under the supervision of Arthur Woodward. The original site is marked by California Registered Historical Landmark No. 304. The reconstructed station is owned by the County of San Diego.

Warner's Ranch Stage Station: Warner's Ranch is located in San Diego County, four miles south of Warner's Hot Springs, on State Highway 79. Situated approximately one mile east of the Ranch House are the remains of an old adobe house. This one story building is believed to have been the Butterfield Stage Station, 1858-1861, on the Warner Ranch. There is, however, still some question as to whether this is the actual structure that was used for that purpose. The site is marked by California Registered Historical Landmark No. 311 and the Ranch is now the property of the San Diego Water Company.

COLORADO

Virginia Dale Stage Station, Virginia Dale: Located near U. S. Highway No. 287 near the Wyoming-Colorado state line, the Virginia Dale Station is one of the few surviving stations on the Daily Overland Mail Route which extended from St. Joseph, Missouri to San Francisco, California. It continued as a station until 1867 when railroads put an end to the stage route.

MISSOURI

Pony Express Stable, St. Joseph: This stable is situated on the site of the original stable which served as the eastern terminus of the Pony Express which operated between St. Joseph and Sacramento, California. The original stable was built to accommodate 200 horses. The present structure, built on the site of the first stable, now serves as a museum.

NEBRASKA

Fort Kearny: This place served as a station on the Pony Express. It was also one of the main stations on the principal Overland Mail routes between the Missouri River and Sacramento from 1849-1869. The site is now a state park.
Vallecito (reconstructed) stage station, San Diego County, California. This sod house station was reconstructed in 1934 by the County of San Diego on the site of the former Vallecito Butterfield Overland Stage Station.

N.P.S. Photo, 1959.
Virginia Dale Stage Station, located in northern Colorado, was a station on the Central Overland Mail Route. Camera pointing to the North West.
Pony Express Stable Site, St. Joseph, Missouri. This building, now used as a museum, is located on the site of the original Pony Express stables.

N.P.S. Photo, 1956.
Midway Station, Gothenberg: Located about three miles south of Gothenberg, this building is one of the few surviving Pony Express Stations which is standing in its original location. It formerly served as a ranch dwelling.

NEVADA

Mormon Station (Genoa): A frontier settlement near Carson City. Mormon Station was an important mail, stage and Pony Express station on the Central Overland Mail Route (Salt Lake City to California) from 1851 to 1869. On his first trip from Sacramento to Salt Lake City, in May 1851, the pioneer mail carrier George Chorpenning stopped at this site, staked off a quarter section of land, and arranged to establish a mail station. By 1859 the town had 150 inhabitants, 28 houses, two stores, two hotels, one printing office and a telegraph station. Genoa was also the eastern terminal of the California-Nevada telegraph line from 1858 to 1860, when the end of the line was extended on to Fort Churchill. The original log cabin station building was burned in 1910 and a replica has been reconstructed by the State. Mormon Station is now a Nevada State Park.

Schell Creek Station (Fort Schellbourne): Schell Creek Station is located in White Pine County, on Nevada Highway 2, at the western approaches to the Schellbourne Pass, and approximately 14 miles to the east of Egan Canyon. Nevada 2, a gravel road, crosses the beautiful Schell and Antelope Mountain Ranges to the east, and in so doing, follows almost exactly the course of the original Pony Express and Overland Stage Route 53 miles to the Nevada-Utah border.

Schell Creek was a station on the Pony Express and Overland Stage Route from 1859 to 1869. The first building was destroyed by Indians in 1860 and thereafter several companies of troops were stationed at Schell Creek to patrol this pass and Egan Canyon to the west. The station was thus known as Fort Schellbourne during the Civil War.

Splendid ruins of what was once a two story stone building still stand on the south side of Nevada 2. The building, known locally as "Fort Schellbourne," is shaded by a magnificent grove of great cottonwood trees, - a cool oasis in a burning desert. The style of architecture, and particularly the iron doors on the first floor, suggest that this structure may have been a Wells, Fargo building, erected in the latter part of the Overland Stage days, 1866-1869, or perhaps in conjunction with the deserving of gold at Schell Creek in 1872. Located about 100 feet west of the "fort" is a long low one-story stone building, about 100 years old, that is now used as a residence. East of the fort are the remains of a number of old buildings erected during the 1872 gold strike and now abandoned. The site is privately owned and is utilized as a ranch.
Mormon station (Genoa), Nevada. An important mail, stage, Pony Express, and telegraph station on the Central Overland Route, 1850-1869. The State of Nevada has reconstructed a replica of the original building.
Schell Creek (Fort Schellbourne), Nevada. South (front) and east elevations of the reputed ruins of “Fort” Schellbourne, 1862-69. This was also a station on the Central Overland Stage and Pony Express Route.

N.P.S. Photo, 1960.
Dinner Station Stage Station: Located in Elko County on Nevada Highway 11, 24 miles north of Elko, Dinner Station, was formerly a stop for meals on the route to the ranches and mines of northern Elko County. At this station in the 1870's, teams of stagecoaches were relieved by fresh horses, while inside the two story, stone fort-like walls drivers and travelers ate. The station, a splendid example of stage stations, is now used as a private residence and is well maintained.

NEW MEXICO

Mesilla: At this historic Rio Grande town in southern New Mexico, Butterfield built and maintained the largest station between El Paso and San Diego. From 1860-61 the company operated states between Santa Fe and Mesilla to connect the territorial capital with the transcontinental route. The original walls of the Butterfield station are now incorporated in La Posta Restaurant, which stands on a corner of the picturesque plaza of Mesilla.

OREGON

Wolf Creek Tavern: Wolf Creek Tavern, located at Wolf Creek, Josephine County, on U. S. Route 99, is a splendid example of an early stage station on the California-Oregon route. The frame, two-story building was erected in 1857. It is now privately owned and well maintained. (This site is to be given further consideration in the architectural study of the arts and sciences theme.)

Mountain House Hotel (Cartwright House): The Mountain House Hotel is located three miles south of Lorane, in Lane County. The two-story frame building, containing 12 bedrooms was erected by D. B. Cartwright in 1853. Standing on the old Westside Territorial Road it served from 1854 to 1865 as stage station, hotel and post office, and in 1865, as a telegraph station. The house, privately owned, is still in excellent condition and little altered. (This site to be given further consideration in the architectural study of the arts and science theme).

TEXAS

Fort Belknap, Texas. Important bastion of the North Texas frontier, Fort Belknap was a time-table stop on the Butterfield Overland Mail from 1858 to 1861. The company built a station at the adjoining town-site of Fort Belknap. This station marked a change in country, as well as the point where the coaches switched from horses to mules. Ruins of the stage station may yet be seen east of the restored fort. Located in Young County on the Brazos River, the fort is maintained and administered by the Fort Belknap Society.

1Fort Belknap was classified exceptionally valuable under the subtheme "Military and Indian Affairs."

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Dinner Stage Station, Elko County, Nevada. An 1870-80 stage station on the Elko-Butte Mountain run in northern Nevada.

N.P.S. Photo, 1960.
Wolf Creek Tavern, Wolf Creek, Oregon. Erected in 1857, this building was a stage station on the California-Oregon route. North (front) and east elevations.

N.P.S. Photo, 1960.
Mountain House Hotel (Cartwright House), near Lorane, Oregon. Erected in 1853, this building served as a stage station, hotel, post office, and telegraph office on the old westside Territorial Road from 1854 to 1865.
Pine Spring Stage Station: This station marked the point where the Butterfield route crossed the Guadalupe Mountains of West Texas. It was the highest spot on the Butterfield Trail as originally laid out, and served the company from 1858 until the following year, when the line was moved south to include Forts Stockton and Davis. Located in Culbertson County, its stone ruins are visible today 200 feet north of Highway 62.

Fort Davis: Fort Davis was one of a finger of forts pointing west into trans-Pecos Texas to protect the avenues of transportation and communication. Established in 1854 in the Davis Mountains of present Jeff Davis County, it guarded the junction of the trails from San Antonio to El Paso and from San Antonio to Santa Fe. Beginning in 1854 stages operated through Fort Davis between San Antonio and Santa Fe. The Birch Company in 1857 inaugurated service via Fort Davis between San Antonio and San Diego, and from 1859 to 1861 the Butterfield Overland Mail, Tipton, Missouri, to San Francisco, stopped at Fort Davis.

Impressive ruins of the fort, dating from post-Civil War years, have survived. The site of the Butterfield station has been identified but there are no remains.

UTAH

Fairfield: The town of Fairfield, about 50 miles southwest of Salt Lake City, grew up adjacent to Camp Floyd, military headquarters for the Utah expedition of 1858. During the short era of the Pony Express, a relay station was built at Fairfield; and with inauguration of overland stage service on the central route in 1861, the first station west of Salt Lake City was established here. Although both stations have disappeared, the two-story adobe Carson Inn, which served stage passengers, is still standing. It has recently been acquired by the Utah Park and Recreation Commission.

WYOMING

Fort Bridger: The sutler's store and post office, which are still standing, at Fort Bridger, were two of the stopping places of both the Pony Express and Overland Mail.

Rawhide Butte Station, near Jay Em: Located midway on the Cheyenne-Black Hills Stage and Express Company line, this building, from 1883 to 1887, served as headquarters for the stage line. It is now a ranchhouse.

^Fort Davis was classified exceptionally valuable under the subtheme "Military and Indian Affairs."
Fort Davis, Texas. These barracks once housed soldiers who protected stages on the San Antoneo-El Paso run from Mescalero Apaches.

N.P.S. Photo, 1953.
Pine Spring Stage Station, Texas. In the shadow of El Capitan, Butterfield coaches crossed the Guadalupe Mountains of west Texas.

N.P.S. Photo, 1959.
Rawhide Butte stage station, Wyoming, which served as headquarters of the Cheyenne-Black Hills stage route. Camera pointing to the North East.

SITES ALSO NOTED

Arizona

Yuma Crossing

California

Temescal Stage Station

Nevada

Austin
Carson City
Dayton
Eastgate
Sand Springs Station

New Mexico

Sapello Stage Station

Texas

Hueco Tanks
Horsehead Crossing
Fort Chadbourne
Fort Stockton

Utah

Gunnison Massacre Site

Washington

Cashup Stage Station (demolished).
Colville Stage Barn
The National Park Service has adopted the following criteria for selection of sites of exceptional value:

1. Structures or sites in which the broad cultural, political, economic, military, or social history of the Nation is best exemplified, and from which the visitor may grasp the larger patterns of our American heritage. Such sites are naturally the points or bases from which the broad aspects of prehistoric and historic American life can best be presented.

2. Structures or sites associated importantly with the lives of outstanding historic personages.

3. Structures or sites associated with important events which are symbolic of some great idea or ideal of the American people.

4. Structures which embody the distinguishing characteristics of an architectural type-specimen, exceptionally valuable for a study of a period style or method of construction; or a notable work of a master builder, designer, or architect whose individual genius reflected his age.

5. Archeological sites which have produced information of major scientific importance by revealing new cultures or by shedding light upon periods of occupation over large areas of the United States. Such sites are those which have produced or which may reasonably be expected to produce data which have affected theories, concepts, and ideas to a major degree.

6. All historical and archeological sites and structures in order to meet the standards of exceptional importance should have integrity; that is, there should not be doubts as to whether it is the original site or building, original material or workmanship, and original location. Intangible elements of feeling and association, although difficult to describe, may also be factors in weighing the integrity of a site or structure.

7. Structures or sites of recent historical importance relating to events or persons within 50 years, will not, as a rule, be eligible for consideration.