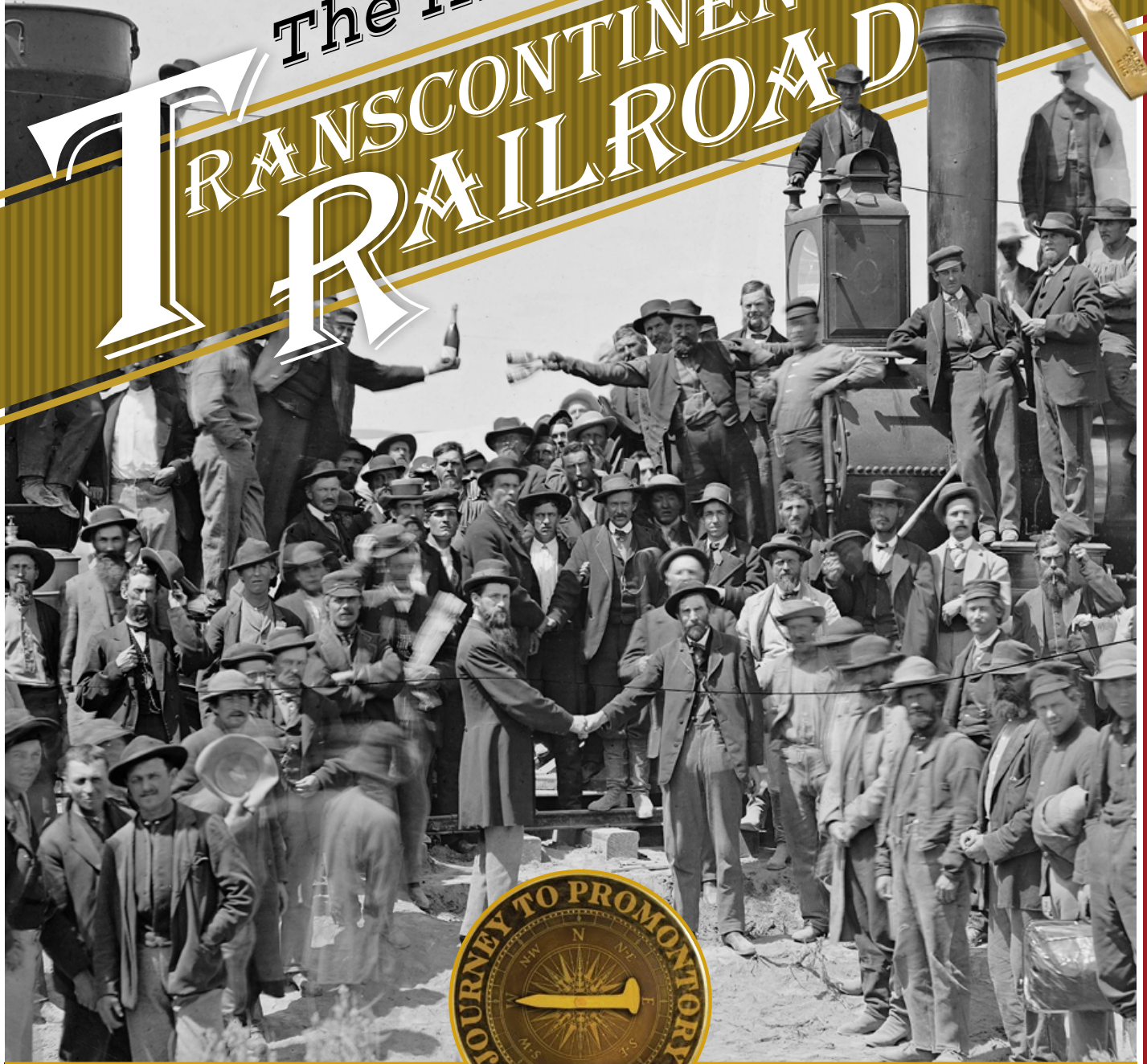


Trains

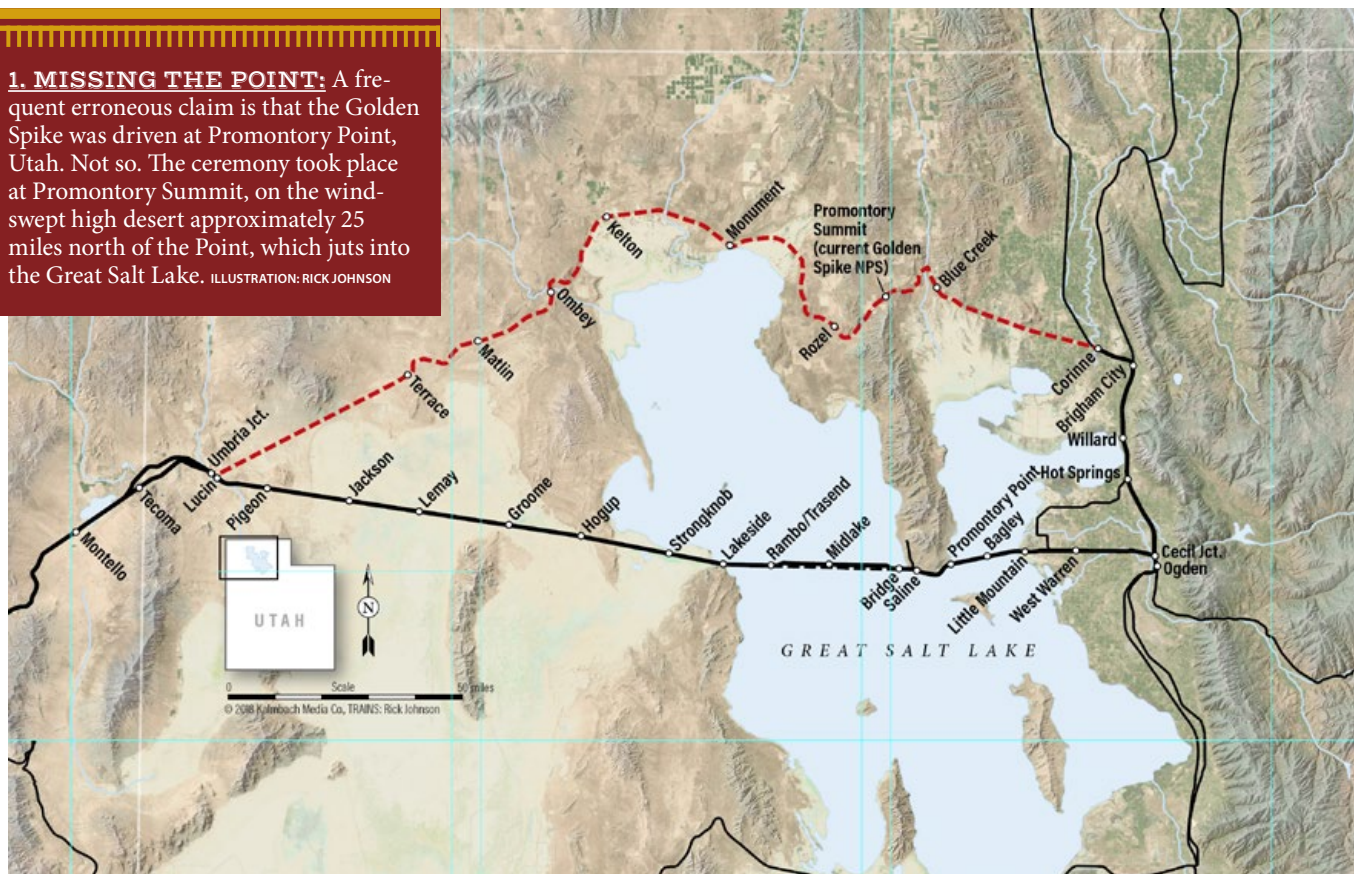
Classic Trains
THE GOLDEN YEARS OF RAILROADING

The History of the TRANSCONTINENTAL RAILROAD



150 FACTS YOU SHOULD KNOW

1. MISSING THE POINT: A frequent erroneous claim is that the Golden Spike was driven at Promontory Point, Utah. Not so. The ceremony took place at Promontory Summit, on the wind-swept high desert approximately 25 miles north of the Point, which juts into the Great Salt Lake. ILLUSTRATION: RICK JOHNSON



2. A 4-4-0 SAILED THE SEA: Central Pacific 4-4-0 *Jupiter* (No. 60), one of the two famous Golden Spike ceremony engines, was delivered to the CP in Sacramento by ship via Cape Horn, the only way the railroad could take delivery from Schenectady Locomotive Works in New York State.

3. COLLEGIATE LEGACY: Stanford University is named in honor of the son of its founder, Leland Stanford, an original member of the Central Pacific's "Big Four" and a one-time California governor and U.S. Senator. He organized the university in 1885.

4. HOSTILE RECEPTION: Union Pacific had occasional conflicts with Plains Native Americans. A historical marker at a rest area on westbound Interstate 80 at mile marker 226 near Cozad, Neb., notes an 1867 attack in which a group of Cheyenne led by Chief Turkey Leg killed several UP workers.

5. SWINDLED: One of the great American scandals of the 19th century involved *Crédit Mobilier*, a construction company set up by Thomas Durant and other UP officials, and its stock-driven bribery of public officials. When the scam unraveled, it tainted a number of top politicians and officials in Washington, D.C.

7. A BRIDGE TOO SPINDLY: Wyoming's infamous Dale Creek Bridge on Sherman Hill — a wooden trestle 650 feet long and 150 high and completed in April 1868 — actually swayed in the wind. UP replaced the dangerous structure with an iron bridge in 1876.

8. MAYHEM MADE FOR TV: The title for the AMC TV series "Hell on Wheels" originated on the UP in the 1860s when someone coined the term to refer to the mobile tent cities set up for construction gangs. These fortunately temporary communities were known for whiskey, gambling, and prostitution — not necessarily in that order.

9. BIG NAME IN BANKING: Crocker Bank, a long-standing mainstay of the California economy, was named for original Big Four partner Charles Crocker. Wells Fargo acquired the bank in 1986 in a \$1.08 billion deal.

10. CRESTING THE SIERRAS: In the spring of 1868, the Central Pacific's line through the Sierra Nevada reached the summit at Donner Pass, elevation 7,056 feet, by virtue of 1,659-foot-long Tunnel 6.



6. RECORD-SETTING TRACK GANG: In its fevered competition with UP, the Central Pacific managed to lay 10 miles and 56 feet of track in approximately 12 hours on April 28, 1869, still considered a record. Located about 3.5 miles west of Promontory, the right-of-way is visible from Golden Spike Road west of the national historic site. SOUTHERN PACIFIC



11. CHEATED OUT OF GLORY: Theodore Judah, the brilliant civil engineer who plotted Central Pacific's route over the Sierras, died of yellow fever Nov. 2, 1863, after contracting the disease crossing the Isthmus of Panama on a trip to New York.

12. A HOTEL WORTHY OF THE BIG FOUR: San Francisco's famed Mark Hopkins Hotel, named for the original Central Pacific investor, stands on the site of Hopkins' own mansion, which burned to the ground amid the San Francisco earthquake of 1906.

13. COAL COUNTRY LEGACY: The city of Huntington, W.Va., is named for Central Pacific partner and Big Four member, Collis P. Huntington, who led the expansion of the coal-hauling Chesapeake & Ohio Railway in the 1870s.

14. CHANGING THE GAUGE: Although the original Pacific Railroad Act of 1862 allowed for President Lincoln to designate a 5-foot gauge for the Transcontinental Railroad, Congress a year later established the railroad as standard gauge, 4-feet, 8 1/2 inches.

15. LEAVING PROMONTORY SUMMIT BEHIND: The original route of the Central Pacific in central Utah was replaced in 1904 when CP successor Southern Pacific opened the Lucin Cutoff, a 103-mile bypass that included the 13-mile Great Salt Lake trestle.

16. RUN-OF-THE-MILL ENGINE: Union Pacific's 4-4-0 No. 119, the counterpart to Central Pacific's *Jupiter* at Promontory, was an off-the-shelf model built by Rogers Locomotive & Machine Works of Paterson, N.J., and delivered to UP in November 1868.

17. MASTERPIECE BY A MASTER: The most widely published image of Central Pacific and Union Pacific crews meeting at Promontory is the work of Andrew J. Russell, who made his reputation in the Civil War as the U.S. Military Railroad's chief photographer.

18. ONE WORD, ONE MESSAGE: Official notification that the Golden Spike had been driven went out at 12:47 p.m. on May 10, 1869, when the ceremony's telegrapher, W.N. Shilling, tapped out a simple message: **DONE.** TRAINS COLLECTION

19. LONELY PYRAMID: On a desolate spot 20 miles east of Laramie, Wyo., the 60-foot-high Ames Monument memorializes Union Pacific financier Oakes Ames as well as the 8,247-foot summit of the Transcontinental Railroad. Designed by architect H.H. Richardson, it was completed in 1882.

20. THE WORK OF MORMONS: Among the laborers building both the Central Pacific and Union Pacific in Utah were teams of young Mormon men, supplied by Brigham Young, leader of the Church of Jesus Christ of Latter-Day Saints.

21. WARTIME CASUALTY: The need for scrap steel in World War II led Southern Pacific to abandon its original line through Promontory, performing a "last spike" ceremony at Promontory on Sept. 8, 1942.

22. A TRAVELING CONSTRUCTION BASE: Union Pacific contractors John and Daniel Casement invented what we today call the work train when they created the "camp train," which included bunk cars, supply cars, business cars, a blacksmith's car, and a carpenter's car.

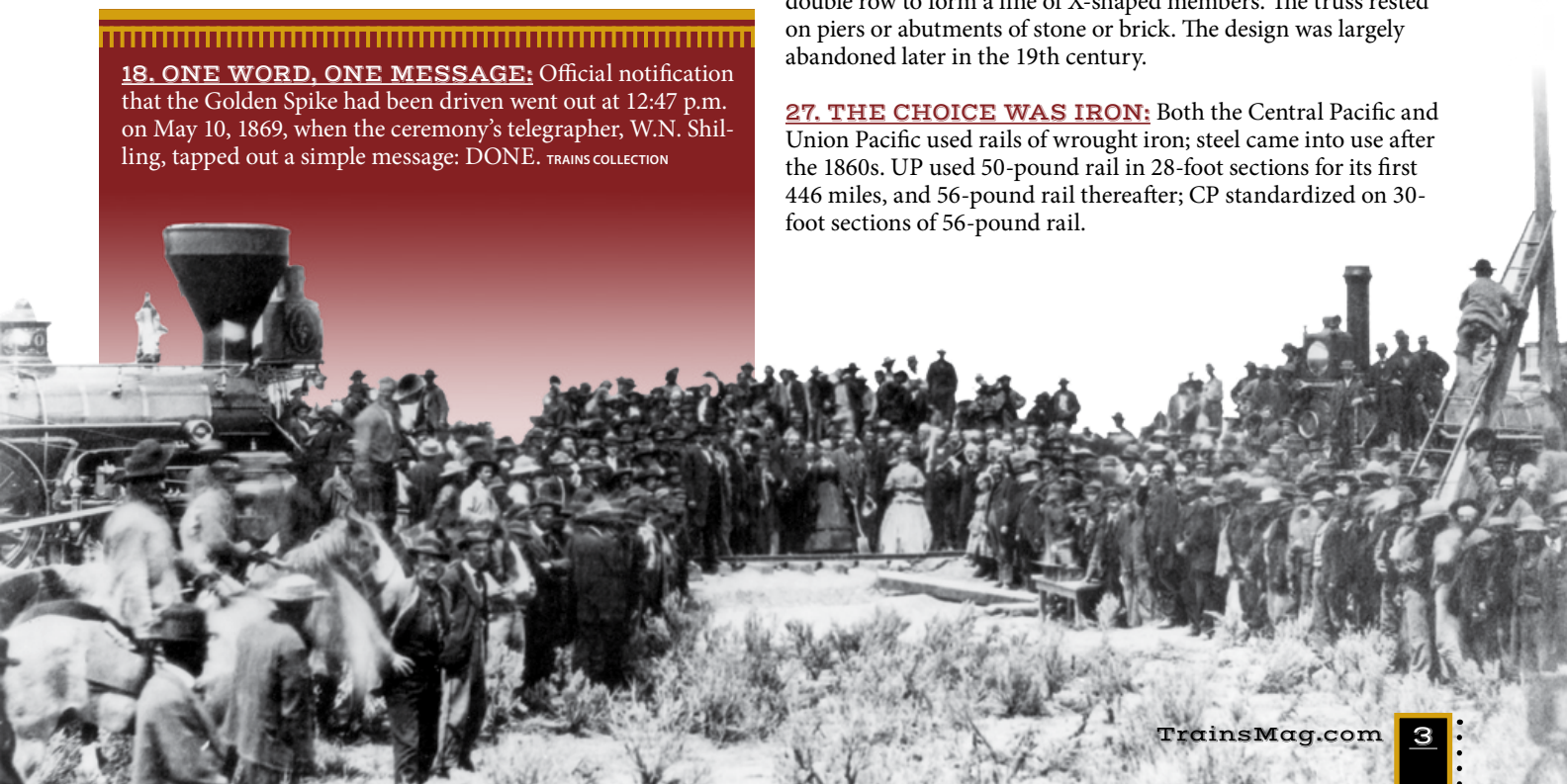
23. CONQUERING THE LARAMIE RANGE: After considering 8,656-foot Cheyenne Pass, Union Pacific surveyors in 1866 chose 8,247-foot Evans Pass as the best route through southeastern Wyoming. The route came to be known as Sherman Hill.

24. UP'S LONGEST BORE: Of four tunnels built by the original Union Pacific construction crews, the longest was 772-foot Tunnel No. 2 at the head of Echo Canyon in the Wasatch Mountains of central Utah.

25. PLAYING GENERAL DODGE: In the 1939, Cecil B. DeMille blockbuster, "Union Pacific," the role of Union Pacific Chief Engineer Grenville M. Dodge was played by Francis McDonald, whose career as a character actor spanned five decades, mostly in Westerns.

26. ZENITH OF THE WOODEN BRIDGE: A large number of bridges on the original transcontinental route were of the Howe through truss design, which used triangles of timber in a double row to form a line of X-shaped members. The truss rested on piers or abutments of stone or brick. The design was largely abandoned later in the 19th century.

27. THE CHOICE WAS IRON: Both the Central Pacific and Union Pacific used rails of wrought iron; steel came into use after the 1860s. UP used 50-pound rail in 28-foot sections for its first 446 miles, and 56-pound rail thereafter; CP standardized on 30-foot sections of 56-pound rail.





28. SMALL LOCOMOTIVES, SHORT TRAINS:

The 4-4-0 and 4-6-0 locomotives of the Transcontinental Railroad era generally could pull 250-ton freight trains of 15 to 20 cars at an average 10 mph, or five- to six-car passenger trains of 90 tons at speeds rarely higher than 25 mph. UNION PACIFIC

29. NOISY CELEBRATION: Upon hearing the news of the driving of the last spike at 12:47 p.m. on May 10, 1869, a hundred guns were fired in a salute at City Hall Park in New York City.

30. DOWN BY THE RIVER: The building of the Central Pacific began with a ground breaking ceremony on Jan. 8, 1863, on K Street in downtown Sacramento, Calif., along the banks of the Sacramento River near today's reproduction CP depot of the California State Railroad Museum.

31. A DIESEL WORTHY OF THE NAME: Union Pacific honored the 100th anniversary of Promontory in 1969 by buying the world's largest single-unit diesel locomotive — EMD's dual-engine, 6,600 h.p. DDA40X — and calling it the *Centennial*.

32. TIES TO THE CONFEDERATE PRESIDENT: After Congress in 1853 appropriated money to survey routes from the Mississippi to the Pacific, the original survey parties were dispatched by Secretary of War Jefferson Davis, who went on to become president of the Confederacy during the American Civil War.

33. BEAUTIFUL BRIDGE, SHORT LIFE: One of the Central Pacific's most graceful spans, the gently curving 1,100-foot-long Secret Town Trestle 62.4 miles east of Sacramento, was replaced shortly after its construction by an earthen fill.

34. WASHINGTON, D.C., WAS A NO-SHOW: Despite the federal government's role in jump-starting the Transcontinental Railroad, not a single high-ranking representative from Washington attended the May 10, 1869, Golden Spike ceremony.

35. REPOSITORY OF THE LAST SPIKE: What is considered the "official" Golden Spike, also known as the Last Spike, was driven at Promontory on May 10, 1869, and is displayed today at the Cantor Arts Center at Stanford University.

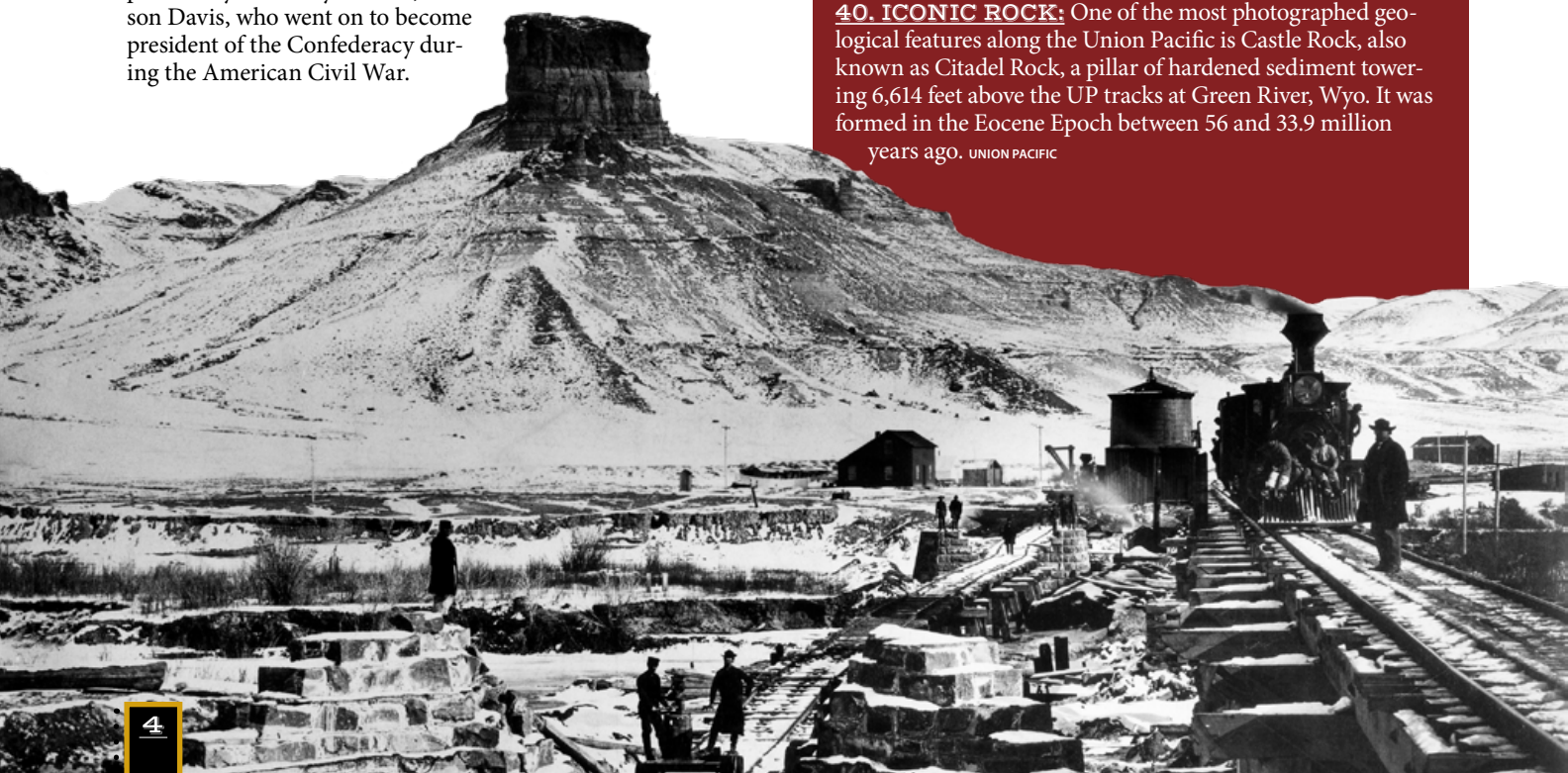
36. RAILROADING OVER MEDICINE: Thomas C. Durant, one of the original prime movers of the Union Pacific, graduated from medical school in Albany, N.Y., but never went into practice, instead choosing to go into the railroad-building business.

37. BATTLING THE SIERRA SNOW: A total of 38 miles of snow sheds and snow galleries were built for the original alignment of the Central Pacific through the Sierra Nevada. The project required 65 million board feet of lumber and cost an estimated \$2 million over several years.

38. STEAM TO THE CENTENNIAL: For the May 1969 celebration at Promontory, High Iron Co. sponsored the *Golden Spike Centennial Limited*, a train pulled across the East and Midwest by Nickel Plate 2-8-4 No. 759 and into Ogden by Union Pacific 4-8-4 No. 8444.

39. BYPASSING SALT LAKE CITY: Union Pacific Chief Engineer Grenville M. Dodge is credited with holding out successfully for the railroad's route through Ogden, not Salt Lake City, a major disappointment to Mormon interests.

40. ICONIC ROCK: One of the most photographed geological features along the Union Pacific is Castle Rock, also known as Citadel Rock, a pillar of hardened sediment towering 6,614 feet above the UP tracks at Green River, Wyo. It was formed in the Eocene Epoch between 56 and 33.9 million years ago. UNION PACIFIC





41. MAKING A SHRINE OFFICIAL: In 1957, Congress established the area surrounding Promontory Summit as the Golden Spike National Historic Site to preserve its 1869 appearance as closely as possible. TRAINS: JIM WRINN

42. HEADLINES IN GOTHAM: The Golden Spike ceremony was the lead story in the May 11, 1869, edition of the New York Times, opening with these sentences: “The long-looked-for moment has arrived. The construction of the Pacific Railroad is *un fait accompli*.”

43. SEEDS OF SP’S CAB-FORWARDS: The long snow sheds and tunnels of Central Pacific’s Sierra crossing — and their lack of ventilation — would lead decades later to the development of Southern Pacific’s unique cab-ahead articulated engines, which ran “backward” to ensure crew safety.

44. DRUGSTORE ADVICE: Central Pacific Chief Engineer Theodore Judah chose the “Emigrant Trail” route across the Sierras via Donner Pass after a guided tour by Dr. Daniel Strong, proprietor of a drug store in Dutch Flat, Calif.

45. BAD WOOD: Much of Union Pacific’s track through Nebraska and eastern Wyoming was built with ties from easily available cottonwood trees along the Missouri and Platte rivers. The soft cottonwood decayed easily, leading to its quick replacement.

46. THE HAND OF A SCOTSMAN: Central Pacific 4-4-0 *Jupiter*, the Promontory engine, was built to a design developed by Schenectady Locomotive Works Superintendent Walter McQueen, who emigrated from Scotland in 1830 and advocated a simple, orthodox approach to engine design.

47. THE RAILROAD IN STEREO: Central Pacific’s chief photographer, Alfred A. Hart, shot almost all of his images as “three-dimensional” stereographs, to be used by the CP as corporate and lobbying gifts.

48. ALERTING THE WHITE HOUSE: President Ulysses S. Grant received news from Promontory via a telegram from Leland Stanford and Thomas Durant: “We have the honor to report the last rail laid — the last spike driven. The Pacific Railway is finished.”

49. THE CRITICS PANNED IT: Perhaps the most popular Transcontinental Railroad book was Stephen E. Ambrose’s “Nothing Like it in the World” (Simon & Schuster, 2000), which

hit No. 1 on the New York Times best-seller list. But it was roundly criticized for errors. Railroad historian Don L. Hofsmommer called it “once over lightly.”

50. THE INSANITY OF PARALLEL RAILROADS: The intense rivalry of Central Pacific and Union Pacific culminated in 200 miles of duplicate graded right-of-way in Utah before the two companies finally agreed to meet at Promontory.

51. A ROUTE FORGED IN WAR: Prior to 1860, Southern and Northern interests clashed over the best way to build a railroad to the Pacific. Southern politicians argued for a route to California from Memphis, New Orleans, or even St. Louis. The Civil War ended the debate. Today’s Overland Route prevailed.

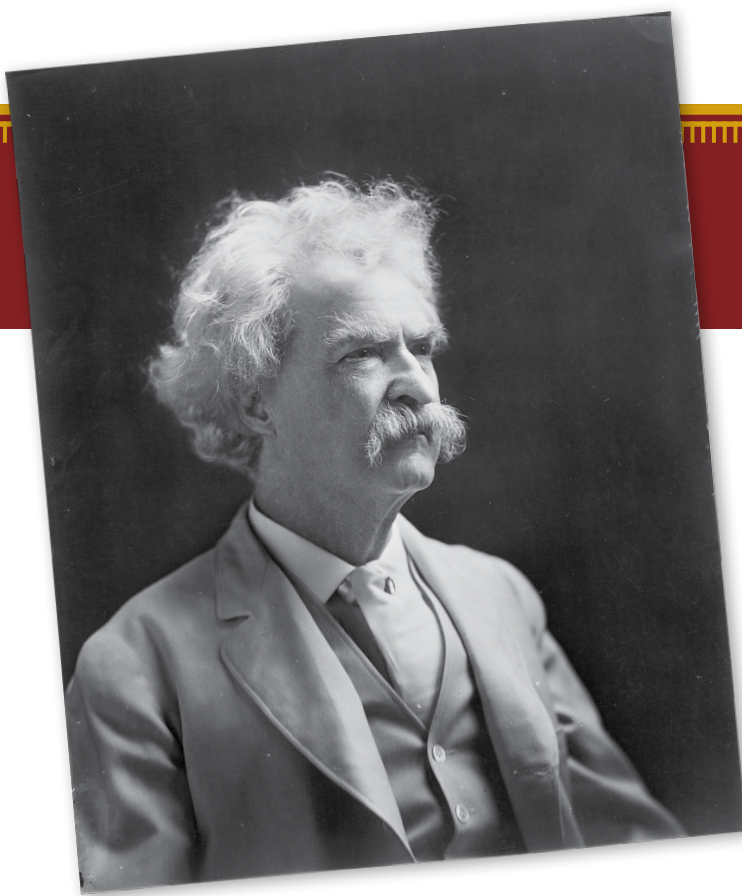
52. THE GIFT OF LAND: The original Pacific Railroad Bill of 1862 awarded the Central Pacific and Union Pacific not only financial support in the form of bonds, but also rights-of-way extending 200 feet on either side of the tracks plus 6,400 acres per mile of surrounding property, subject to the certification of each 40 miles of track built.

53. MANIFEST DESTINY: The Transcontinental Railroad spelled the end for the Plains Native Americans, at least in the analysis of historian and diplomat Charles Francis Adams, son of President John Quincy Adams. “The Pacific railroads have settled the Indian question,” the younger Adams wrote in 1885.

54. HUGE EVENT, HUGE PAINTING: Doubtless, the largest piece of art to come out of the Promontory experience was Thomas Hill’s gigantic “The Driving of the Last Spike,” a 157 ¼ by 85 ¼-inch oil painting completed in 1881 and now exhibited at the California State Railroad Museum.

55. THE ROAD TO YELLOWSTONE: Scenic photographs of Union Pacific in 1869 by William Henry Jackson landed him a job with the Hayden Geological Survey of 1871, which later led to the creation of Yellowstone National Park.

56. FLAWED EPIC: In the sprawling, but historically fanciful, 1962 Cinerama movie “How the West Was Won,” actor George Peppard played Zeb, an Army lieutenant charged with helping to protect railroad construction workers from Native American attacks.



63. TWAIN GOT INTO THE ACT: The financial shenanigans of the Transcontinental Railroad were one influence on authors Mark Twain and Charles Dudley Warner when they wrote 1873's "The Gilded Age," a satirical novel about land speculation. A. F. BRADLEY, LIBRARY OF CONGRESS COLLECTION

64. PLACATING THE TRIBES: As far back as August 1853, President Franklin Pierce dispatched the commissioner of Indian Affairs along the Pacific railroad's route to pave the way for treaties in which tribes would surrender 18 million of their 19.3 million acres.

65. ACROSS THE WIDE MISSOURI: The Union Pacific began building westward from a riverside location south of the Council Bluffs, Iowa, ferry landing on Dec. 2, 1863. Joining the ceremony was UP civil engineer Peter Dey, who read a message from President Abraham Lincoln.

66. COOKING THE BOOKS, LITERALLY: The Central Pacific escaped much of the post-Promontory scrutiny that tarnished Union Pacific's construction, perhaps because the books of CP affiliate Contract & Finance Co. ended up "lost." Whether it was an accident or on purpose remains unknown.

67. HE STARTED OUT ON CANVAS: Before he became a famed photographer of the Union Pacific construction, Andrew J. Russell began his career as a landscape painter, known for his large-scale idealized views of his native Upstate New York.

68. OUTWITTING THE SNOW: To minimize the effects of snow in the Laramie and Wyoming basins, Union Pacific surveyors located tracks on the east side of valleys, oriented cuts toward the north and northwest, and built embankments 2 to 4 feet higher than normal.

69. SKEPTICAL EDITORS: The benefits of a Pacific railroad were not universally recognized. At one point, the trade journal Railroad Gazette opined: "A connection a hundred miles long in a State east of Chicago might easily give a more profitable traffic than the entire thousand miles of the Union Pacific."

70. BLAZING ROCK: Sparks and cinders from locomotives often ignited oil shale, lining the sides of 100-foot-long and 60-foot-deep Carmichael's Cut at Union Pacific's milepost 785 in Wyoming's Bitter Creek valley.

71. GOOD AS GOLD: According to the National Park Service, the official Golden Spike of May 10, 1869, weighed 14.03 ounces and was valued at \$350. Using recent gold prices, the spike would be worth more than \$18,000.

72. CHEAP TICKET ON THE PACIFIC RAILROAD: In 1870, a New York-to-San Francisco train ticket in coach generally cost \$65 and required seven days of travel. Today, a New York to Oakland, Calif., coach ticket on Amtrak costs approximately \$240 and takes 3 days, 10 hours.

73. ALL ALONG THE WATCHTOWER: Visitors to Union Pacific's sprawling Bailey Yard at North Platte, Neb., have a great view of the freight-train action from the eight-story Golden Spike Tower, a large tourist viewing platform alongside the yard.

57. A TREE GROWS IN WEBER CANYON: In January 1869, Union Pacific surveyors encountered a large pine tree at a point approximately 1,000 miles west of Council Bluffs, Iowa. Dubbed the Thousand Mile Tree, it died before 1900. In 1982, UP planted a similar tree near the same site.

58. WORK STOPPAGE IN THE SIERRAS: Central Pacific's biggest labor emergency was a brief strike by Chinese workers in June 1867, when they demanded a 10-hour day and \$40 per month pay. They settled days later for \$35 per month but were stuck with an 11-hour day.

59. PROMONTORY POETRY: Bret Harte, a popular 19th-century writer, romanticized the Golden Spike ceremony with these words from his June 1869 poem, "What the Engines Said": "What was it the Engines said; Pilots touching — head to head; Facing on the single track; Half a world behind each back?"

60. NOT SO PROMINENT ANYMORE: Southern Pacific's last regularly scheduled passenger train to Promontory, Utah, operated in 1938. Because the line was downgraded since the 1904 opening of the Lucin Cutoff, the Promontory branch was down to twice-weekly service.

61. TIES TO THE WILD WEST: The brawling town of Dodge City, Kan., once home to Bat Masterson and Wyatt Earp, owed its name to Union Pacific's Grenville M. Dodge, whose post-Civil War military career included the establishment of nearby Fort Dodge.

62. THE CHINESE ADVANTAGE: Among the reasons why Central Pacific's Charles Crocker hired more than 20,000 Chinese workers from the San Francisco area was that he became convinced they were diligent, hard-working, uncomplaining workers that would stay sober.



74. JUPITER AND 119 VS. BIG BOY: Of the two locomotives at Promontory, Central Pacific's 4-4-0 *Jupiter* weighed 65,450 pounds and Union Pacific 4-4-0 No. 119 just 54,000 pounds, engines only, a total of 119,450 pounds. UP's *Big Boy* 4-8-8-4 weighs more than six times as much — 762,000 pounds, engine only. TRAINS: JIM WRINN

75. IN OTHER NEWS: On May 6, 1869, just five days before Promontory, Purdue University was founded in West Lafayette, Ind. The science, technology, and agricultural school was named for local businessman and philanthropist John Purdue.

76. GOING TO MARKET 150 YEARS AGO: Among average prices for groceries across the U.S. in 1869 were milk at 9 cents per quart, eggs at 24 cents per dozen, "roasting" beef at 14 cents per pound, and cheese at 24 cents per pound.

77. NO ONE THOUGHT TO KEEP THEM: Both of the 4-4-0 locomotives at the Golden Spike ceremony, Central Pacific *Jupiter* and Union Pacific No. 119, were returned to regular service after the ceremony and eventually scrapped, the 119 in 1903, the *Jupiter* in 1909.

78. PLAYING A RAIL BARON: The cast of the AMC cable TV series "Hell on Wheels" included the role of Central Pacific Railroad titan Collis P. Huntington, played by actor Tim Guinee.

79. BOFFO OPENING NIGHT: The lavish Cecil B. DeMille movie "Union Pacific" had its premiere April 28, 1939, in three separate theaters in Omaha, including the Omaha, the Orpheum, and the Paramount. RICHARD KOENIG

80. FIRST TRAINS ON THE CP: The Central Pacific began regularly scheduled passenger service in April 1864 with three daily trains between Sacramento and Junction, Calif., now known as Roseville, 18 miles east of Milepost 1.

81. REJOICING IN CHICAGO: On the day after Promontory, the New York Times reported that news of the Golden Spike ceremony the day before sparked a seven-mile-long impromptu celebratory parade through Chicago.

82. TOWN OF INIQUITY: For many months after the Golden Spike, Promontory was known as a wild place. As Lucius Beebe wrote: "Promontory Point gamblers were notable for their rapacity and the dispatch with which they cleaned the unwary."

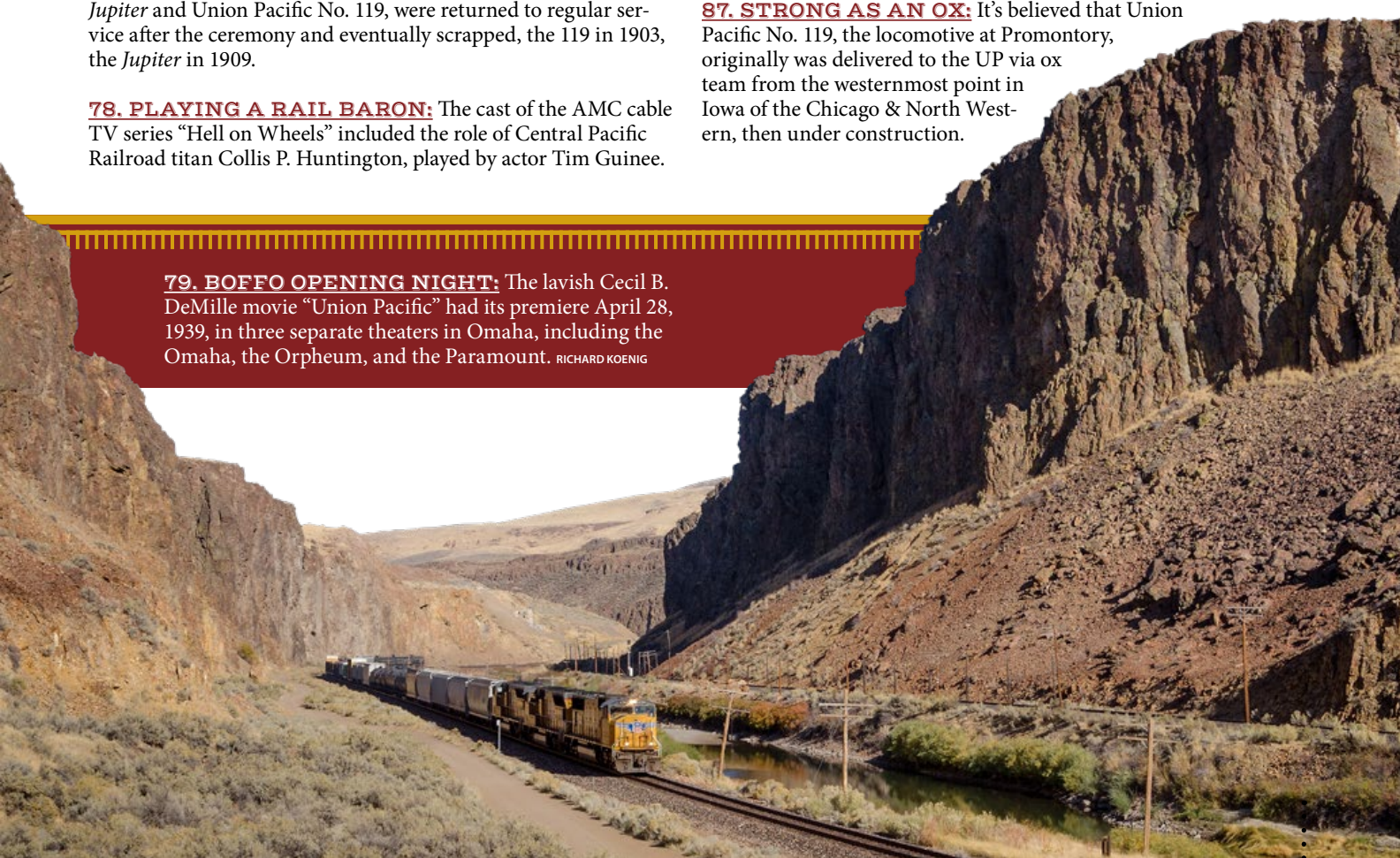
83. THE DUKE WAS ABOARD: Actor John Wayne was on the train when the *Golden Spike Centennial Limited* arrived in Salt Lake City on May 9, 1969. His new movie, "True Grit," opened that same weekend.

84. IT WAS A BOY'S CLUB: Various sources indicate that of the more than 500 to 1,000 people attending the Promontory ceremony on May 10, 1869, no more than 20 were women, mostly the wives of railroad officials and military officers.

85. OFF TO A SLOW START: The first rail of the Union Pacific was put in place in Omaha on July 10, 1865. By the end of the year, plagued by mismanagement, the UP would only be able to manage to build another 40 miles of track.

86. SEEDS OF THE NATIONAL PASTIME: Just six days before Promontory, the Cincinnati Red Stockings baseball team, a precursor to today's Reds, defeated the Great Westerns of Cincinnati, 45-9, in the first baseball game involving openly professional players.

87. STRONG AS AN OX: It's believed that Union Pacific No. 119, the locomotive at Promontory, originally was delivered to the UP via ox team from the westernmost point in Iowa of the Chicago & North Western, then under construction.





93. FROZEN IN THE SIERRAS: The winter of 1866 to 1867 was one of the worst on record in the Sierra Nevada mountains, with more than 40 feet of snow in the higher elevations. Avalanches and other disasters claimed the lives of countless Central Pacific workers. SOUTHERN PACIFIC

94. ABE MAKES IT OMAHA: The decision to make Omaha the eastern terminus of the Union Pacific is credited to President Abraham Lincoln who was undoubtedly distracted two days before delivering the Gettysburg Address and hurriedly picked Omaha via executive order.

95. WAR IS EXPENSIVE: By starting out amid the Civil War, the Central Pacific's founders faced skyrocketing prices thanks to war shortages. Rail that sold for \$55 per ton in 1860 was up to \$115 two years later, spikes went from 2.5 cents a pound to 6.5 cents, and blasting powder from \$2.50 per keg to \$15 per keg.

96. IN OTHER NEWS: On May 15, just five days after Promontory, Susan B. Anthony and Elizabeth Cady Stanton formed the National Woman Suffrage Association, earning women the right to vote in 1920.

97. THAT DISNEY TOUCH: Both locomotives at the Golden Spike National Historic Site originally were painted by veteran Walt Disney animator Ward Kimball, a lifelong railroad enthusiast.

98. A HOTEL FOR POWER BROKERS: Central Pacific's Collis P. Huntington and Union Pacific's Thomas C. Durant did much of their lobbying of Congress at the Willard Hotel, 1401 W. Pennsylvania Ave. in Washington. The hotel exists today at the same address, in a building built in 1901.

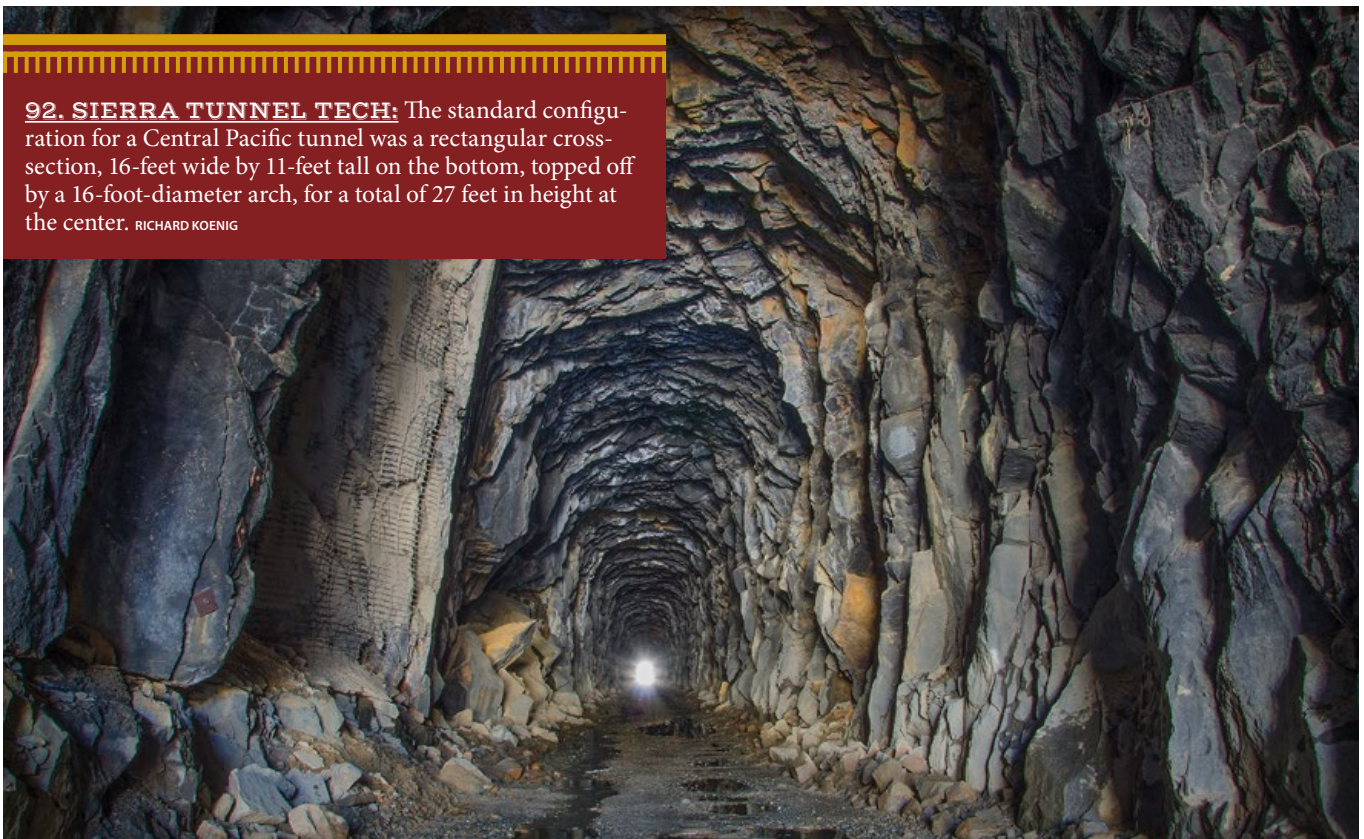
88. MISSING THE POINT: Eyewitness accounts from May 10, 1869, indicate that both Central Pacific's Leland Stanford and Union Pacific's Thomas C. Durant both missed hitting the last spike with their ceremonial spike mauls; they only intended to tap them.

89. BIG NOISE IN PHILADELPHIA: Upon hearing the news from Promontory, the city of Philadelphia parked a line of steam fire engines at the entrance to Independence Hall, their bells ringing and their whistles screeching.

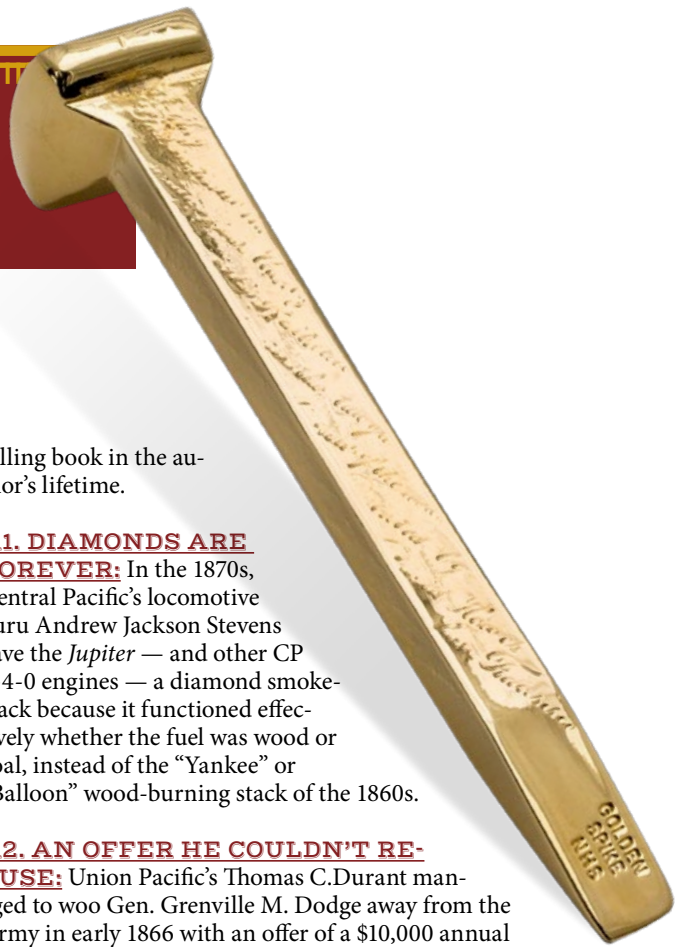
90. GIDDY NEWSPAPER EDITORS: At the completion of the Transcontinental Railroad, the New York Herald Tribune bragged, "We are the youngest of the peoples, but we are teaching the world how to march forward."

91. MADE IN CALIFORNIA: Both replica 4-4-0 locomotives at the Golden Spike National Historic Site — Central Pacific *Jupiter* and Union Pacific No. 119 — were built in 1980 by O'Connor Engineering of Costa Mesa, Calif.

92. SIERRA TUNNEL TECH: The standard configuration for a Central Pacific tunnel was a rectangular cross-section, 16-feet wide by 11-feet tall on the bottom, topped off by a 16-foot-diameter arch, for a total of 27 feet in height at the center. RICHARD KOENIG



99. THE GOLDEN SPIKE IN SONG: Among the more obscure tunes in the catalog of the hit Sixties folk group The Kingston Trio is “The Golden Spike,” a song about working on the track gang. A recurring lyric: “Listen to my hammer whine.” BILL ZUBACK



100. MEANDERING RAILROAD: Building west from Omaha, Union Pacific’s Thomas C. Durant plotted a course that included a long, superfluous oxbow, creating extra mileage to be supported by federal grants. E.H. Harriman eliminated the oxbow after becoming UP chairman in 1893.

101. A GOLDEN SPIKE FOR HOOTERVILLE: In one of its Fall 1969 episodes, the hit CBS sitcom “Petticoat Junction” included a golden spike ceremony to honor the building of the Hooterville-Pixley railroad.

102. ALL IS QUIET IN BEANTOWN: Alone among large U.S. cities, Boston declined to stage any elaborate celebrations of the driving of the Golden Spike, other than a few political speeches at Faneuil Hall, which were largely ignored.

103. GUNS AND LUGGAGE: Increasingly slowed by Native American attacks, Union Pacific after the summer of 1867 began putting loaded rifles in the overhead racks of passenger cars, at no charge to the public.

104. PROMONTORY IN THE GUIDE: The June 1869 Official Railway Guide was the first to include timetables for Central Pacific and Union Pacific connecting services. That issue also listed more than 400 other existing U.S. railroads, 60 more than the previous issue.

105. QUENCHING A RAILROAD’S THIRST: Building across Nevada in 1868, Central Pacific found the alkaline well water to be undrinkable. Instead, CP crews bored dozens of slanting bores into nearby mountains, tapping into gushing supplies of water to be transported back to crews in water wagons.

106. HOMEMADE SNOWSHOES: Central Pacific workers in the Sierras, confounded by heavy snow, often made their own “Norwegian snowshoes,” fashioned from a strip of wood 10 to 12-foot long and 4-inches wide, and used along with poles.

107. MONTAGUE RISING: After the death of chief engineer Theodore Judah in 1863, Central Pacific promoted his assistant, Samuel S. Montague, to the job. Born in New Hampshire, Montague was a veteran of several Midwestern railroad projects.

108. DPM’S LESSON: In the May 1969 issue, TRAINS Editor David P. Morgan wrote, “Thus 100 years after Promontory, the place where one railroad route could not be completed soon enough, we are faced with the reverse situation wherein we cannot reduce too many railroads too soon.”

109. COMMEMORATIVE GUN: In May 1969, Winchester sold a gold-plated replica rifle honoring the repeater rifle, credited with saving the lives of Union Pacific crews in their skirmishes with the Sioux. You could have one in 1969 for \$119.95.

110. WHAT THEY WERE READING: Around the time of Promontory, American readers were enjoying Mark Twain’s “The Innocents Abroad, or The New Pilgrims’ Progress,” the best-

selling book in the author’s lifetime.

111. DIAMONDS ARE FOREVER: In the 1870s, Central Pacific’s locomotive guru Andrew Jackson Stevens gave the *Jupiter* — and other CP 4-4-0 engines — a diamond smokestack because it functioned effectively whether the fuel was wood or coal, instead of the “Yankee” or “Balloon” wood-burning stack of the 1860s.

112. AN OFFER HE COULDN’T REFUSE: Union Pacific’s Thomas C. Durant managed to woo Gen. Grenville M. Dodge away from the Army in early 1866 with an offer of a \$10,000 annual salary, plus other various benefits.

113. ANOTHER CONSTRUCTION TRIUMPH: While crews were building the Transcontinental Railroad, 7,000 miles to the east, an international consortium pushed just as feverishly to finish Egypt’s Suez Canal. The engineering wonder opened in November 1869.

114. CARRYING THE TAILSIGN: The 14-car *Golden Spike Centennial Limited* of May 1969 ended with ex-Pennsylvania Railroad observation car *Mountain View*, formerly in *Broadway Limited* service. It resides today at the Railroaders Memorial Museum in Altoona, Pa.

115. FAST TRACK: By 1866 and 1867, Union Pacific construction crews working across the Nebraska and Wyoming prairie were laying track at a pace of approximately 8 miles per week, more than five times that of the Central Pacific.

116. STRANGE BEDFELLOWS: Constantly harassed by hostile members of the Sioux nation, Union Pacific’s Grenville M. Dodge enlisted the help of the Pawnee tribe to boost security. The Sioux and Pawnee were ancient enemies.

117. GETTING THERE FASTER: Before the Transcontinental Railroad reduced travel times, a stagecoach trip from St. Joseph, Mo., to Salt Lake City took 18 days and charged a fare as high as \$350 per person. Fast-forward to 2019 and that fare is equal to \$6,189.25.

118. TRANSCONTINENTAL ROAD FOOD: Hungry travelers heading west on Utah Highway 83 to the Promontory historic site might try Golden Spike Burgers, a popular lunch place in the town of Corinne, Utah.



119. FROM PROMONTORY TO SHORT LINE:

With a new frame, a new boiler, and a conversion to coal fuel, Central Pacific 4-4-0 *Jupiter* played out its last years on the Arizona short line Gila Valley, Globe & Northern and was scrapped around 1909. TRAINS STAFF

120. SALUTING THE CELESTIALS: After the Promontory ceremony, Central Pacific Superintendent James H. Strobridge invited to his private car the eight Chinese workers who laid the last rail. All who were present toasted the men as representatives of all the Chinese workers on the CP.

121. BGO WAS THE MODEL: The Pacific Railroad Act of 1862 required that the two participating railroads follow the construction standards of the railroad most familiar to the politicians in Washington, D.C., the Baltimore & Ohio.

122. FAST FOR ITS DAY: By December 1869, Union Pacific and Central Pacific could offer 130-hour, 4-minute Chicago-to-Oakland service aboard the *Atlantic & Pacific Express*, with a change of trains at Ogden, Utah.

123. OMAHA HELD A PARTY: When the movie “Union Pacific” premiered in April 1939, the city of Omaha staged the Golden Spike Historical Exposition, a four-day event at the Municipal Auditorium. More than 250,000 people attended.

124. LONDON CALLING: After Promontory in 1869, the Times of London wrote, “If the present year should also witness the completion of the Suez Canal, it will indeed be a singular coincidence, but even the cutting of the Isthmus is a less wonderful exploit than this Pacific Railroad.”

125. SUPPLY-CHAIN TECHNOLOGY, 1868: At one point, Union Pacific Chief Engineer Grenville M. Dodge estimated that every mile of UP track required 40 cars of supplies, including track material and necessities for men and animals.

126. BARELY WIDE ENOUGH FOR A RAILROAD:

As it cut through the Sierras, the Central Pacific built a narrow shelf for its railroad at Cape Horn, 1,300 feet above the North Fork of the American River. The location — now part of Union Pacific — is substantially the same today.

127. ARCS OF TRIUMPH: Over its 690 miles of railroad between Sacramento and Promontory, writes historian Wendell W. Huffman, the Central Pacific built 1,013 curves, totaling 277 miles of track bent into shape before installation.

128. LINCOLN KNEW RAILROADS: The passage of the Pacific Railroad Act of 1862 was due in no small measure to the influence of Abraham Lincoln who, in his days as an Illinois lawyer, had won major cases on behalf of the Rock Island and Illinois Central railroads.

129. REINING IN THE CP: The Pacific Railroad Act of 1862 required that Central Pacific build eastward to the Nevada border; an 1864 amendment allowed it to build 150 miles farther east. Finally, an 1866 amendment cleared CP to build until it met Union Pacific.

130. THE ARMY POINTS THE WAY: Although the final route varied, Union Pacific owed a debt to Howard Stansbury of the U.S. Army Corps of Topographical Engineers, whose 1849 to 1851 survey of Utah helped lay the groundwork for the Transcontinental Railroad.

131. EXCITEMENT IN FRANCE: The Le Figaro newspaper in Paris cheered the completion of the Pacific Railroad, saying, “What happens to the distances? California is only 15 days away from Paris — she was three months away 20 years ago at the time of her union with the United States.”

132. IT SHOULD HAVE BEEN CHICAGO: Economist George W. Hilton said the “worst error” of the Pacific Railroad was making Omaha the eastern terminus, not Chicago. The result was the growth of too many weak railroads between the two cities.

133. BENEFITS OF THE LUCIN CUTOFF: In its Bulletin newsletter of June 1, 1914, Southern Pacific said replacing the mountainous Promontory line with the new causeway across the Great Salt Lake eliminated enough curves to “turn a train around 11 times.” TRAINS COLLECTION

134. HANDSHAKE FOR THE AGES: In the famous A.J. Russell photograph at Promontory, the two men shaking hands in the foreground are the two chief engineers on the project, Central Pacific's Samuel S. Montague, left, and Union Pacific's Grenville M. Dodge.

135. PEACE PARLEY: A much celebrated July 1868 meeting between Gen. Ulysses S. Grant, then a candidate for president, and Sioux Chief Red Cloud, is credited with dramatically de-escalating the threat of violence that hung over the building of the Union Pacific.

136. WHO THOUGHT OF IT FIRST?: Among the many people claiming to have the original idea for a Pacific Railroad and writing about it was Lewis Gaylord Clark, editor of the *Knickerbocker Magazine*, a literary publication that lasted from 1833 to 1865.

137. "THE BIGGEST LITTLE CITY IN THE WORLD": In early May 1868, Central Pacific's Charles Crocker arrived at a tent city at milepost 154 in Nevada on the Truckee River. Crocker named it Reno, for Maj. Gen. Jesse Reno, a Union hero of the Civil War.

138. SACRAMENTO SPIKE: The "other" Golden Spike displayed at the California State Railroad Museum is identical to the one driven at Promontory, both manufactured in 1869 by the William T. Garrett & Co. foundry in San Francisco. The spike remained in private hands until the museum acquired it in 2006.

139. ATTRACTING PASSENGERS: Both Central Pacific and Union Pacific supported the publication of illustrated travel guides to encourage western train travel. One of the first, and best known, was George Crofutt's "Great Trans-Continental Railroad Guide," published just four months after Promontory.

140. SLOW GOING: On May 10, 1869, Union Pacific issued Time Schedule No. 16, listing four daily trains in each direction over the 1,084.4 miles between Promontory and Omaha. The average speed for the 59-hour, 15-minute trip was 18.3 mph.

141. IN HOPKINS WE TRUST: It was said that Mark Hopkins was the only original Central Pacific partner that Collis P. Huntington truly trusted. "I never thought anything finished until Hopkins looked at it," Huntington once said of his treasurer.

142. A CUT ABOVE: One of the Central Pacific's toughest early projects was Bloomer Cut at Auburn, Calif., a 63-foot-deep, 800-foot-long gash through a ridge of rock and clay. Hundreds of kegs of black powder were used before it could be opened in May 1865. The cut remains in use today.

143. A NEW YORK CENTRAL TRADITION: The departure of 1969's *Golden Spike Centennial Limited* from Grand Central Terminal necessitated an encore of the famous electric-to-steam engine change at Harmon, NY., in which Nickel Plate 2-8-4 No. 759 took over from an electric motor.

144. FRIENDS IN HIGH PLACES: When a dispute between Union Pacific's Thomas C. Durant and Grenville M. Dodge came to a head in the summer of 1868, several legendary Civil War generals defended Dodge, including Ulysses Grant, William T. Sherman, and Philip Sheridan. Chief engineer Dodge remained in his job.

145. TRAIN FARE FOR THE CARRIAGE TRADE: Not long after Promontory, Union Pacific and Central Pacific agreed on through-rates for first-class passengers — \$76 one way from Omaha



146. WILDEST RAILROAD TOWN: Perhaps the most dangerous "hell on wheels" settlement on the Union Pacific was Benton, Wyo., a dusty spot 11 miles east of Rawlins, Wyo. It was reputed to have 25 saloons, 5 dance halls, and 100 murder victims during its brief existence from July to September 1868. UNION PACIFIC

to Ogden, \$57 Ogden to Sacramento. Food and drink, of course, were extra.

147. RELYING ON EXPLOSIVES: For some reason, Central Pacific's construction boss James Harvey Strobbridge resisted using steam drills for tunneling, widely used on the Union Pacific. Instead, Strobbridge stuck with hand drills to bore holes for explosives.

148. HOW OAKLAND WON: The Central Pacific in 1868 settled on Oakland as its western terminus after the California Legislature arranged to acquire, then donate to the railroad, more than 500 acres along the city's waterfront.

149. THE MORMON RAILROAD: Miffed that the Pacific Railroad bypassed Salt Lake City, Brigham Young and other Mormon interests built the Utah Central Railroad, a 40-mile link to Ogden. The railroad opened for business in 1870.

150. HONORING ABE: The Union Pacific Museum in Council Bluffs, Iowa, honors President Lincoln's role in the Pacific Railroad with a collection that includes his rocking chair from his law office in Springfield, Ill., and items from the president's private railroad car.

