

Building Alameda Cañon's first iron road:

*How Niles Canyon's first transcontinental railroad was built
by three different gangs of Chinese builders in two acts, 1865-1866 & 1869.*

By Victor K. Wong,¹ February 2023

Prologue: Three years ago, I sketched out a brief tale ² of how the last leg of the first transcontinental railroad from Sacramento to San Francisco Bay was accomplished by three different crews or gangs of Chinese builders during the period from 1865 to 1869.

Now I provide a more detailed account of their storied accomplishments, with some more findings, including a rare photo of the San José junction. Specifically I focus here on the building of a short central segment of the last leg of the transcontinental railroad: the first iron road in Alameda Cañon (now Niles Canyon) between Alameda and Amador valleys.³ This 11.6-mile central segment is the only segment of the Pacific Railroad that owes its existence to the combined efforts of three different gangs of Chinese builders. It is also the *raison d'être* of the Niles Canyon Railway as well as the Niles Canyon Transcontinental Railroad Historic District.

Act 1: June 1865 through September 1866

In June 1865, a railroad work gang first entered Alameda Cañon (now Niles Canyon).⁴ The work gang was under the supervision of Jerome B. Cox⁵ (hereafter called the Cox gang). Cox *et al.*⁶ was the subcontractor hired by Charles E. McLaughlin, the contractor for Western Pacific Railroad (WPRR). WPRR existed from 1862 to 1870 specifically to build the last leg of the first transcontinental railroad from Sacramento to San José, where it hooked up with the railroad to San Francisco.

The Cox gang had started from San José and graded past Milpitas, before entering the narrow twisty Cañon from the south, about a mile east of Vallejo's Mill, near milepost 30.6 (hereafter denoted MP 30.6).⁷

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² Victor K. Wong, "A brief tale of three Chinese gangs (1865-1869): How three different railroad gangs of Chinese workers helped build the last leg of the first transcontinental railroad to the Pacific, from Sacramento to San Francisco Bay," (January 2020).

³ A preliminary version of this paper, without references and notes, appeared in *Tales of the Past*, courtesy of Dexter Day, in the *Club Car* newsletter of Niles Canyon Railway (November 2022).

⁴ *Marin Journal*, Volume 5, Number 13 (10 June 1865).

⁵ Jerome B. Cox was Captain of the 10th Indiana Battery at the 1862-1863 Battle of Murfreesboro. See *Stockton Independent*, Volume VII, Number 143 (16 January 1865); and *Truckee Republican*, Volume XIII, Number 1 (19 December 1883).

⁶ Cox & Myers started on the subcontract, *Stockton Independent*, Volume VII, Number 140 (12 January 1865); but by July 1865 it was Cox & Arnold. Here I use Cox *et al.* generically to refer to either.

⁷ Standard practice uses the historic Southern Pacific Railroad mileposts from the San Francisco Ferry Building, as corrected in the 1911 survey, to locate resources along the main line of the railroad.



Fig. 1. In June 1865, the Cox gang, working on the WPRR line, entered Alameda Cañon from the south, just west of Capt. Scott's house, about a mile east of Vallejo's Mill. In 1865 the San Francisco Bay Railroad was not constructed (and was not until 1869 when the Strobridge gang entered the Cañon). The only structure of significance in the Cañon in June 1865 was a wooden flume on the north bank of Alameda Creek, carrying water to power Vallejo's Mill from a millpond behind a dam about 2 miles upstream (near MP 31.4, off map to the right).⁸ By Summer 1866 the Cox gang constructed three bridges crossing Alameda creek; the first two are shown on this map: the first bridge is located south of MP 30.6 (abandoned 1870 and later destroyed) and the second bridge is Dresser Bridge at MP 30.78 (still in use now).⁹ Note that only Vallejo's Mill was on the map; Niles did not exist in 1869.

Map: cropped by author from the 1869 WPRR bond map; Library of Congress, courtesy of Randy Hees and Alan Frank.

⁸ Philip Holmes, Jill M. Singleton, *Niles, Fremont* (2004) page 10; original dam and flume was built by J. J. Vallejo around 1841-1856 to power his grist mills.

⁹ The mileposts in the caption of Fig. 1 are given along the main line running west to east on the 1869 San Francisco Bay Railroad to the 1865-1866 WPRR line at MP 30.6 (San José Junction) and eastward. The San José branch south of MP 30.6 was operational for only 8 months, September 1869 to April 1870.

The Cox gang in the Cañon was about 600 strong, composed mainly of Chinese builders from a tiny southern parcel of the then-closed Qing-Dynasty China. The Chinese builders were deeply rooted villagers from the rural Pearl River Delta, on the west side of the open-port city of Canton (Guangzhou) in Guangdong province.¹⁰ They spoke village variants of Cantonese, some mutually unintelligible. In the Cañon they lived in tents and grouped themselves with their own cooks. One such “China camp” was near MP 32.7 beside Alameda Creek.¹¹ Surely there must have been others, since about 600 young men had to be housed and fed.

The Cox gang made heavy rock-cuts in the Cañon using what they had, which were hand tools (shovels, picks, hammers, drills, etc.), black powder, horses and carts. The 20-ft-wide roadbed for the first iron road had to thread through the Cañon with many cuts and fills to maintain its approximately 1% ascending grade with a curvature no more than 10 degrees in 100 feet.¹²

In August 1865 the *SF Flag* news reporter was awestruck when confronted with the “imposing spectacle” of the Cox gang accomplishing their heavy work in the Cañon: *“It seems incredible the quantity of solid rock they blast from its ancient bed; the forests they fell; the hollows they make level; the cuts they make in the mountain’s side; the cañons they bridge; the change they make in the face of nature in a few days!”*¹³

In the January 1866 annual WPRR meeting at San José,¹⁴ some of the monumental handiwork they achieved were descriptively revealed: *“through-cuts of over sixty feet in depth and side-hill cuttings of much greater depth”* -- some places so steep that landslides may occur during the wet season. The description continued: *“Some of the embankments are over fifty feet in height, and are retained at the bottom by huge walls of solid masonry.”* This large dry-laid buttressed stone retaining wall near MP 32.7, made from locally quarried coursed sandstone, is still in use.

By Spring 1866, it became apparent that because of circumstances beyond his control, McLaughlin *“had to commence at the heaviest end of the road, all of which he regrets very much”*.¹⁵ Also, they had competition for workers: Cox *et al.* could not push forward as fast as they would like, as they could not hire enough Chinese builders, *“owing to there being so many employed on the Central Pacific Railroad.”*¹⁶ In Summer 1866, tracklaying was *“suspended for nearly six weeks, for want of material,”* even though grade was completed *“some distance up Alameda Cañon.”*¹⁷

¹⁰ See e.g., Gordon H. Chang, *Ghosts of Gold Mountain* (2019) Ch. 1 Guangdong

¹¹ Niles Canyon Transcontinental Railroad Historic District (NCTR HD) documentation (2009, 2010) “D1.7 Mayborg (MP 32.7) ... was the site of a ‘China Camp’ during the WPRR construction in 1865-1866.”

¹² *ibid.* “C1 Railroad grade”

¹³ Reprinted in *Shasta Courier*, Volume 14, Number 23 (5 August 1865)

¹⁴ *Daily Alta California*, Volume 18, Number 5786 (11 January 1866)

¹⁵ *Stockton Independent*, Volume X, Number 36 (14 March 1866)

¹⁶ *Daily Alta California*, Volume 18, Number 5904 (10 May 1866)

¹⁷ *Daily Alta California*, Volume 18, Number 6016 (31 August 1866)

Nonetheless, in addition to the hand rock-cuts, grading, and masonry, the Cox gang completed by Summer 1866 ¹⁸ *“three very large massive bridges, built of the very best material, on solid stone masonry.”* Although the piers were solid stone, the original wooden *Howe's truss* bridge was deemed *“light, strong and elegant as a work of art”*. (In 1866, while Central Pacific constructed temporary bridges on timber piers in the Sierra, WPRR built strong bridges with permanent stone piers and abutments.)

The first bridge in the Cañon (south of MP 30.6) was decommissioned April 1870,¹⁹ then later destroyed. The second bridge at MP 30.78 is the Dresser bridge. The third bridge at MP 31.56 is the Farwell bridge. Both Dresser and Farwell bridges are in use, although the superstructures have been replaced. The original stone piers were angled parallel to the course of the river below, not perpendicular to the railroad's alignment. These original coursed sandstone piers are some of the best available examples of 19th-century railroad engineering and stone masonry.²⁰

To receive federal aid, WPRR had to complete 20 miles of track from where they started in San José, and the 20-mile mark was at MP 32.75 in the middle of the Cañon. But when they finished 20 miles of track from San José at the end of September 1866, Cox abruptly halted the project, leaving equipment and supplies strewn in the Cañon, and more disturbingly, abandoning his work gang. Cox had run out of money!

Cox *et al.* filed a “heavy suit” against McLaughlin, citing a breach of contract,²¹ which dragged on for more than 20 years.²² Meanwhile, WPRR inaugurated the 20-mile road on October 2, 1866, with free rides.²³ Although it was a railroad to nowhere in the Cañon, daily excursion trains from San José operated into November 1866.²⁴

More than a year later, in December 1867, the *Sacramento Daily Union* ran a surprising story under the headline **Verdict**: *“In the case of Ah Ying et al. vs. J. B. Cox et al., to recover for labor furnished to the Western Pacific Railroad Company, the jury, in the Eleventh District Court, returned a verdict against defendant Cox & Arnold for \$64,434.71.”* ²⁵ This was a large class-action lawsuit for the Chinese builders' back pay.

Ah Ying was a broker who furnished Cox with up to 1,000 Chinese to work for WPRR for a given length of time, *“each gang of thirty to have a foreman who could speak English, the foreman to receive \$40 per month, and the others \$1.16 per day.”* ²⁶ The amount awarded in the Verdict was equal to about 2,000 man-months of labor! How did the Chinese win a lawsuit before an all-white jury? Did the Cox gang ever get paid for work rendered on the heaviest part of Alameda Cañon's first iron road?

¹⁸ *Daily Alta California*, Volume 18, Number 6036 (20 September 1866)

¹⁹ Victor K. Wong, *“A tale of two junctions: the birthing of Niles, 4 June 1869 to 28 April 1870,”* (Dec 2020)

²⁰ Alan Frank in Henry Luna and Pacific Locomotive Assoc., *“Niles Canyon Railways”* (2005) page 87.

²¹ *Marysville Daily Appeal*, Volume XIV, Number 75 (30 September 1866)

²² *Daily Alta California*, Volume 42, Number 14125, (2 May 1888), final decision by the Supreme Court.

²³ *Sacramento Daily Union*, Volume 32, Number 4841 (3 October 1866) and *Sacramento Daily Union*, Volume 32, Number 4844 (6 October 1866)

²⁴ *Stockton Independent*, Volume XI, Number 86 (8 November 1866)

²⁵ *Sacramento Daily Union*, Volume 34, Number 5219, (19 December 1867)

²⁶ *Daily Alta California*, Volume 19, Number 6485 (17 December 1867)



Fig. 2. To receive federal aid, the Cox gang had to complete its first 20 miles of track, which was laid from San José. On this 1869 WPRR bond map, the San José 20-mile mark (MP 32.75) was in the middle of the Cañon and next to the red flag signifying the mileage from Sacramento (in 1869, WPRR was then after 103 miles of federal aid). When the tracklayers of the Cox gang reached the San José 20-mile mark in September 1866, Cox stopped all work and abandoned his work gang. Cox *et al.* had run out of money.

Even though WPRR got the federal aid for its first 20 miles from San José, that did not prevent it from going bankrupt. Cox *et al.* filed suit against the WPRR contractor McLaughlin, which dragged on for more than twenty years. In contrast, the Cox gang quickly won its class action lawsuit against Cox *et al.*, which was for about 2,000 man-months of back pay for work rendered in the heaviest part of the Cañon.

Map: cropped by author from the 1869 WPRR bond map; Library of Congress, courtesy of Randy Hees and Alan Frank.

Intermission: October 1866 through May 1869

No building activity of note occurred in the Cañon during the 32 months from October 1866 through May 1869. There were, however, several significant events during this lull that shaped and enabled the second act in the Cañon.

In June 1867, at the urging of Governor Stanford and with help from Judge Crocker, the reluctant Associates of the Central Pacific (CP) bought out the bankrupt WPRR, regaining the franchise from Sacramento to San José with no money transferred, and diverted its assets to their work in the high Sierras. Because of Stanford's lead in acquiring WPRR, it became known as "the Governor's Road".²⁷ But nothing was to be done with the newly acquired WPRR line until CP crossed the Summit of the Sierra,²⁸ which occurred in November 1867.

In February 1868, CP's new subsidiary, Contract & Finance, made a contract with Turton, Knox & Ryan to resume work on the WPRR line starting at the Sacramento end, and John Ryan was the supervisor of the work gang (hereafter called the Ryan gang).²⁹ In April 1868, Governor Stanford led Central Pacific to acquire the Oakland waterfront and declared Oakland, not San Francisco, as the new western terminus of the Pacific Railroad³⁰ -- President Lincoln's railroad "*from the Missouri river to the Pacific Ocean.*"

On May 10, 1869, the Pacific Railroad was completed from the Missouri river to Sacramento, when the CP track from Sacramento was joined to the Union Pacific track from Omaha at Promontory Summit in Utah territory. When Governor Stanford struck the iron spike that day, which sent out the telegraph D.O.N.E. across the nation, he knew that the last leg of the Pacific Railroad from Sacramento to San Francisco Bay was NOT done. Indeed, the Ryan gang at that time had completed only 30 miles of track from Sacramento to the Sacramento County line.³¹

Two weeks later, Governor Stanford made an oral contract, according to historian Tutorow,³² with his celebrated construction supervisor James H. Strobridge: to build a new line starting from a junction in the Cañon on the 1866 WPRR line from San José (hereafter called the San José Junction), a mile east of Vallejo's Mill, into Alameda valley and to Oakland.³³ At the same time, workers from the Ryan gang were sent to the Cañon to put the bridges and tracks already completed in 1866 back into working order.³⁴ By the end of May 1869, the stage was set, the Cañon prepped, ready for the second act.

²⁷ Norman E. Tutorow *"The Governor: The Life and Legacy of Leland Stanford"* (2004) Vol. 1, page 261.

²⁸ *Sacramento Daily Union*, Volume 33, Number 5102 (5 August 1867)

²⁹ *Stockton Independent*, Volume XIV, Number 18 (21 February 1868)

³⁰ *Daily Alta California*, Volume 20, Number 6593 (3 April 1868)

³¹ *Sacramento Daily Union*, Volume 37, Number 5657 (14 May 1869)

³² Norman E. Tutorow *"The Governor: The Life and Legacy of Leland Stanford"* (2004) Vol. 1, page 306.

³³ On 12 February 1869, Stanford publicly assured Oakland's Mayor Samuel Merritt that CP will run a line to Oakland. *Sacramento Daily Union*, Volume 36, Number 5581 (15 February 1869)

³⁴ *Stockton Independent*, Volume XVI, Number 99 (26 May 1869)

Act 2: June 1869 to mid-August 1869

On June 4, 1869, James H. Strobridge, with some of his men, horses, grading and camp tools, boarded the steamer *Yosemite* at Sacramento and sailed to begin work on a new railroad line starting in the Cañon.³⁵ At the request of CP's chief engineer Samuel S. Montague, Alfred A. Cohen (then in CP's law department) obtained a one-year lease of Vallejo's Mill and consent from Mill's owner, José de Jesús Vallejo, to shut down the Mill and tear out its flume. Strobridge and his Chinese work gang, which swelled to 500 strong (hereafter called the Strobridge gang), came to grade the new main line that generally followed the line of the old flume, starting at the San José Junction with Cox's WPRR line at MP 30.6.³⁶ The flume was then rebuilt on the lower side of, and about parallel with, the new main line.³⁷

Meanwhile, Ryan sent part of his gang, which had grown to about 2,000 strong (working at Livermore's Pass, the Mossdale bridge, and south of Sacramento), into the Cañon to build "*commencing twenty miles from San José, at the end of the section completed by former owners of the franchise, and working up Alameda Cañon into Livermore Valley.*"³⁸ Thus, in June 1869, after more than two and half years of inactivity, the Cañon was booming with two separate work gangs toiling away back to back: the Strobridge gang at MP 30.6 working westward from San José Junction and the Ryan gang at MP 32.75 working eastward along Cox's WPRR line up the Cañon.

The Strobridge gang's new main line started "*about 100 yards above the eastern end of the lower [first] bridge, and running down the creek on the north side, hugging around the sides of the hills with a gentle sweep into the [Alameda] valley.*" Hugging around the hillside entailed "*some heavy side cuttings [for] only about a mile.*"³⁹

A month later, the *Daily Alta California* reported that the Chinese builders under Strobridge were "*found to work admirably, no rows, no strikes, no dictation of terms to employers under the threats of violence, and in fact nothing but square out work with no nonsense.*" Also, they had completed the heavy hillside-cutting and "*already finished track-laying for about a mile and a half, commencing at the [San José] Junction.*"⁴⁰ Back then in July 1869, Niles did not exist in the valley at MP 29.2 (it began its life there on April 28, 1870).⁴¹ Thus, the track reported to be at about 1.5 miles west of the San José Junction (MP 30.6) meant that the Strobridge gang had exited the Cañon and entered Alameda Valley, just about at Niles, by the end of July 1869.

³⁵ *Sacramento Daily Union*, Volume 37, Number 5676 (5 June 1869)

³⁶ Niles Canyon Transcontinental Railroad Historic District (NCTR HD) documentation (2009, 2010) "D1.3 Merienda (MP 30.6) is the site of San José Junction 1869-70"

³⁷ Henry Roots, "*Personal History and Reminiscences with Personal Opinions on Contemporary Events 1845-1921*" (1921) Chapter 3: http://www.cpr.org/Museum/Henry_Root_1921.html#Oakland-SF

³⁸ *Sacramento Daily Union*, Volume 37, Number 5676 (5 June 1869)

³⁹ *Daily Alta California*, Volume 21, Number 7029 (17 June 1869)

⁴⁰ *Daily Alta California*, Volume 21, Number 7066 (25 July 1869)

⁴¹ See footnote 19; the Niles Junction (MP 29.2), established on April 28, 1870, is now known just as Niles for the settlement; and the present-day Niles Junction (MP 29.6) was established much later in 1909.

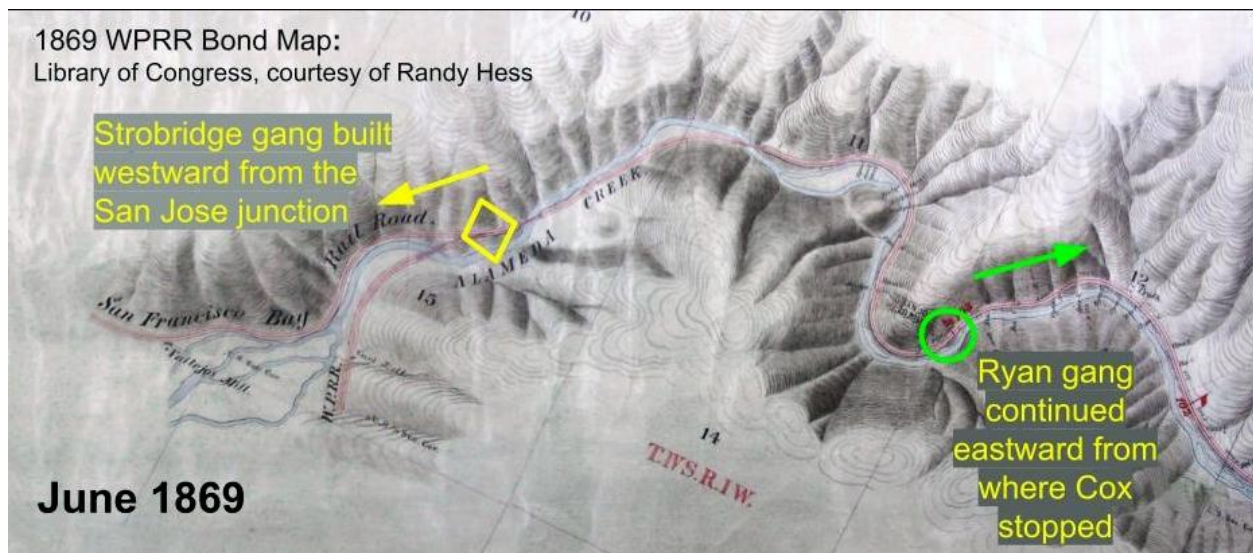


Fig. 3. When iron road building returned to Alameda Cañon in June 1869 after a 32-month lull, a portion of the Ryan gang picked up the WPRR line where the Cox gang stopped (circle, MP 32.75) and built eastward towards Amador Valley, while the Strobridge gang built a new main line (later named San Francisco Bay Railroad)⁴² westward from the San José Junction (diamond, MP 30.6) towards Alameda valley (and San Francisco Bay).

Meanwhile, the portion of the Ryan gang,⁴³ sent to work eastward from the San José 20-mile mark (MP 32.75), had further to go (almost eight miles) to reach the village of Pleasanton (established 1867) and Amador valley. Pleasanton had donated land to WPRR for a railroad station (near MP 40.6) and warehouses.⁴⁴ Fortunately, the Ryan gang had some prior help from the Cox gang of 1865-1866. Cox had originally signed a contract with WPRR for a 75-mile stretch from San José to Stockton and had men working in 1865 as far east as Livermore Pass (now Altamont Pass).⁴⁵

When the original stone piers of the Arroyo de la Laguna bridge (MP 36.9) were recently examined, the conclusion was: "*The stone abutments and two of the piers date from the initial construction. Although nearly four miles beyond the end of WPRR track, the stonework is indicative of WPRR construction c.a. 1866.*"⁴⁶ In other words, the Cox gang apparently built the original stone piers of all four major bridges in the Cañon

⁴² Norman E. Tutorow "The Governor: The Life and Legacy of Leland Stanford" (2004) Vol. 1, page 266 "The Associates organize the San Francisco Bay Railroad -- September 25, 1868"

⁴³ Turton, Knox & Ryan had by 1869 the contract for the entire WPRR line from Sacramento to the San José Junction. Although Ryan was the supervisor of the work gang when they started grading from Sacramento, it is not clear who supervised the workers along the line of over 100 miles. Here I use "Ryan gang" generically to refer to any and all of the gangs working under Turton, Knox & Ryan.

⁴⁴ Mary-Jo Wainwright and the Museum on Main, *Pleasanton* (2007) page 8.

⁴⁵ Stockton Independent, Volume VII, Number 140 (12 January 1865) "Railroad Sub-Contract." Sacramento Daily Union, Volume 29, Number 4449 (24 June 1865) "The Western Pacific Railroad."

⁴⁶ Niles Canyon Transcontinental Railroad Historic District (NCTR HD) documentation (2009-2010) "D2.2.3 Arroyo de la Laguna Bridge (MP 36.9)"

before work was abruptly halted when its track reached the 20-mile mark from San José (MP 32.75) in September 1866.

About two months after the Ryan gang started in June 1869 working up the Cañon from MP 32.75, newspapers from Marysville and Sacramento reported that on Saturday, August 14th, the “*railroad track working eastward was completed to Pleasanton*” at MP 40.6 in Amador valley outside the Cañon.⁴⁷

With the Ryan gang reaching Amador valley and the Strobridge gang already in Alameda valley, the last rail of the first iron road in the Cañon between Niles and Pleasanton was laid without fanfare on August 14, 1869, at Pleasanton.

Summary: And so it was that the 11.6-mile stretch of the first transcontinental railroad through Alameda Cañon was completed by three different gangs of Chinese builders working in two separate acts:

- A difficult 16-month act from June 1865 through September 1866, featuring the long-suffering under-resourced Cox gang, who toiled on the heaviest part of the Cañon's core WPRR main line (MP 30.6->32.8), who was abandoned by Cox *et al.*, and who had to sue for about 2,000 man-months of back pay.
- A long 32-month intermission from October 1866 through May 1869, during which CP bailed out the bankrupt WPRR and re-routed the main line to Oakland.
- A quick 2.5-month act from June 1869 to mid-August 1869, featuring two better-resourced work gangs toiling back-to-back in the Cañon: (a) the Strobridge gang, starting a new main line from San José Junction (30.6), reaching westward to Alameda valley (MP 30.6->29 Niles) by end of July; and (b) a portion of the Ryan gang, picking up where the Cox gang's tracklayers stopped (MP 32.8), reaching eastward to Amador valley (MP 32.8->40.6 Pleasanton) by mid-August.

Epilogue: Three weeks later, on Monday, September 6, 1869, the main line along with the San José Junction were inaugurated: “*one train switched off at [San José Junction] and went to San José and Gilroy*”,⁴⁸ while the through train from Sacramento, with Governor Stanford and A. A. Cohen on board, according to historian Ford,⁴⁹ continued on the main line to San Francisco Bay, finishing the first iron road from the Missouri river to the Pacific.

The *San Francisco Call* proclaimed: “*The great work of the age [emphasis added] may be said to be completed*”.⁵⁰

⁴⁷ Marysville Daily Appeal, Volume XX, Number 38 (15 August 1869). See also Sacramento Daily Union, Volume 37, Number 5736 (16 August 1869).

⁴⁸ *Daily Alta California*, Volume 21, Number 7110 (7 September 1869).

⁴⁹ Robert S. Ford, *Red Trains in the East Bay* (1977) page 36, “The First Train to Alameda”

⁵⁰ *San Francisco Call* (8 September 1869) “The Laying of the Last Rail”. Reprinted in the *Russian River Flag*, Volume I, Number 44 (16 September 1869).

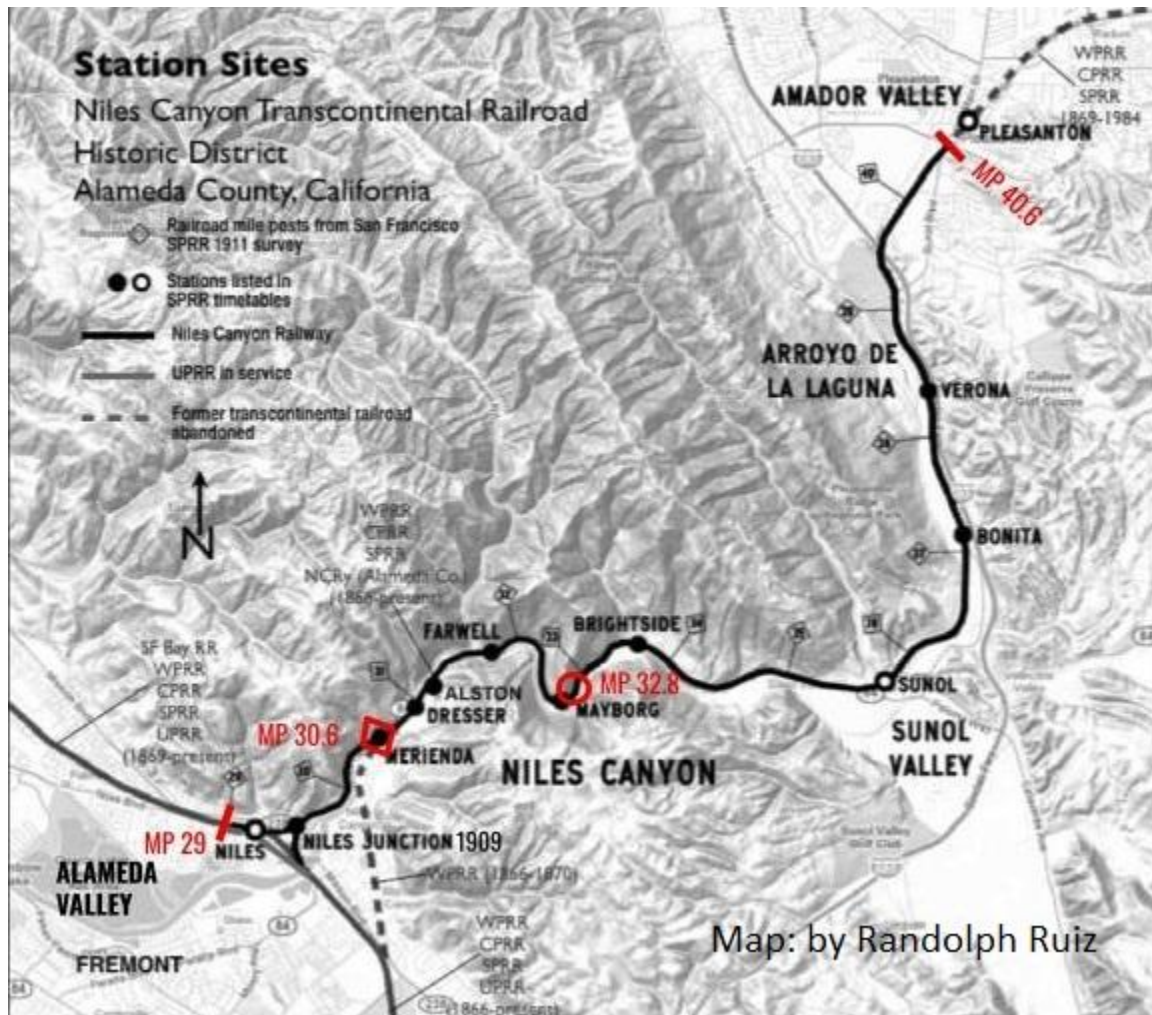


Fig. 4. The 11.6-mile stretch from Niles (MP 29) to Pleasanton (MP 40.6); was originally built by three gangs of Chinese builders in two separate acts: June 1865 through September 1866 and June 1869 to mid-August 1869. The Cox gang entered the Cañon in June 1865 from the south (dotted line) and built the main line from Merienda (MP 30.6) to the San José 20-mile mark (near MP 32.8) by September 1866. In June 1869, 32 months later, the Strobridge gang started a new main line at San José Junction (Merienda, MP 30.6) and built westward to Niles (MP 29) in Alameda valley by end of July 1869. Meanwhile, a portion of the Ryan gang was sent in June 1869 to continue eastward the main line from where the Cox tracklayers stopped (near MP 32.8) and, aided by what the Cox gang had already done back in 1866, reached Pleasanton (MP 40.6) in Amador valley by mid-August 1869.

The main line along with the San José Junction were inaugurated September 6, 1869, when the Sacramento through train reached San Francisco Bay, completing what the *San Francisco Call* proclaimed as ***“The great work of the era”***.⁵¹

⁵¹ Later, a short diagonal track was constructed southeast from Niles to the San José branch. When the San José Junction (Merienda) and the first bridge was deactivated (dotted line, Fig. 4) on April 28, 1870, and the new junction at Niles was activated, Niles was born at MP 29.2.

Photo Gallery

Building Alameda Cañon's First Iron Road



Fig. 5. The Cox gang built *“three very large massive bridges, built of the very best [wooden] material, on solid stone masonry.”* This photo is of the third bridge, Farwell Bridge, which is still in use (as well as the second bridge, Dresser Bridge). Over the years, the Farwell bridge’s superstructure was replaced with steel ones, but it was, and still is, supported by the original 1866 solid stone piers.

Photo: John Hermann Heering, photographer, San José, CA, [View of bridge, river, rocks]; dated by Randy Hees to be October 2, 1866; from Robert N. Dennis collection of stereoscopic views, New York Public Library digital collection, Image ID G89F349_010F.

<https://digitalcollections.nypl.org/items/510d47e0-30ed-a3d9-e040-e00a18064a99>

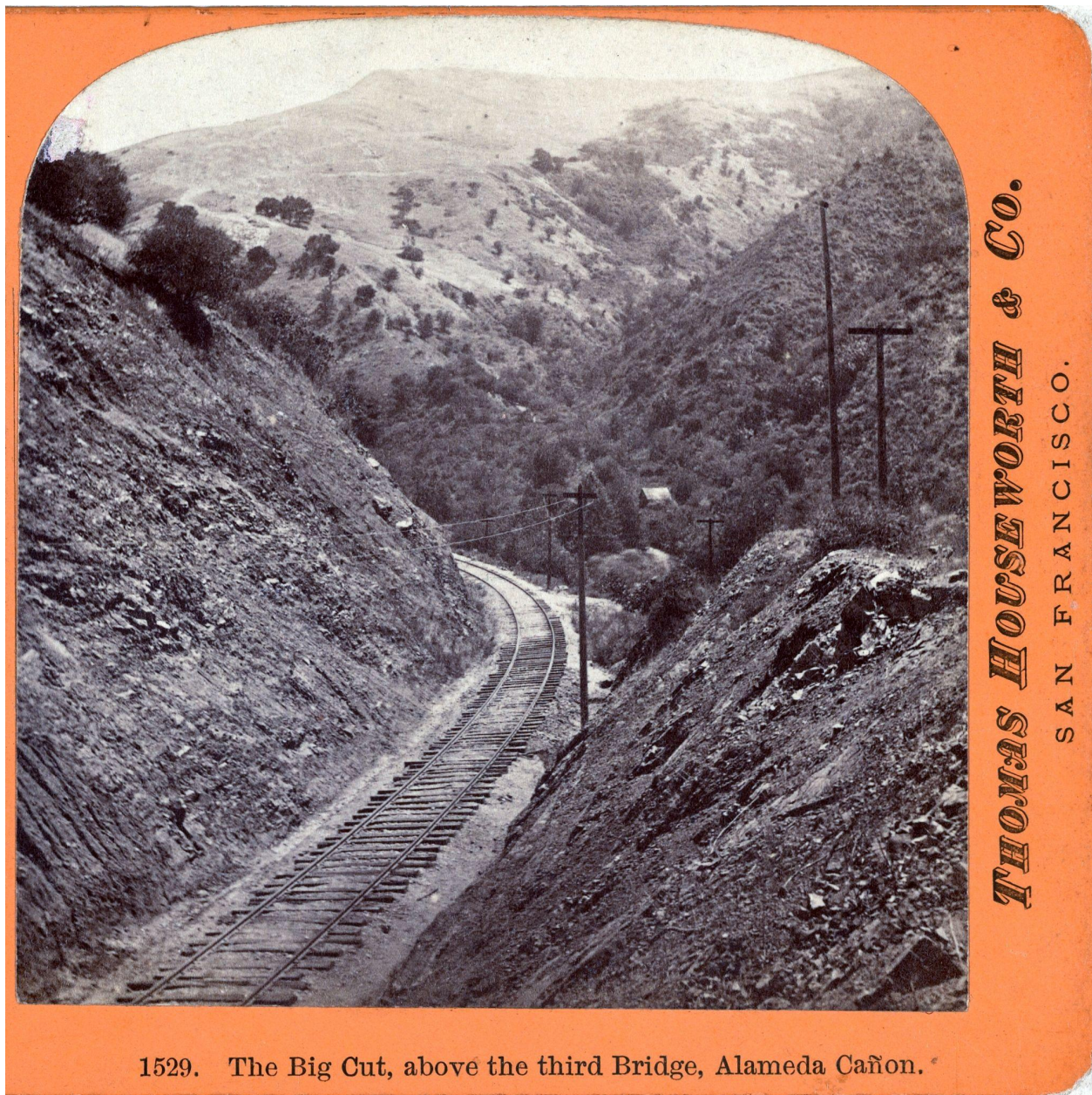


Fig. 6. In 1866 the Cox gang excavated the impressive Big Cut, one of the "through-cuts over sixty feet in depth," with hand tools (picks and shovels) along with horses and carts. In the early 20th century, the hillsides of the Big Cut were partially leveled by the Southern Pacific. Thus, the Big Cut above Farwell Bridge can no longer be seen in all its "imposing spectacle".

Photo: Right half of stereograph, Houseworth & Co., H 1529, J. Paul Getty Museum Collection. Rebranded from Lawrence & Houseworth after Geo. S. Lawrence retired on January 31, 1868. Based on evidence from other photos in the Lawrence & Houseworth Alameda Cañon series, the date of this image is probably in Spring 1867, during the lull in Cañon iron road building.

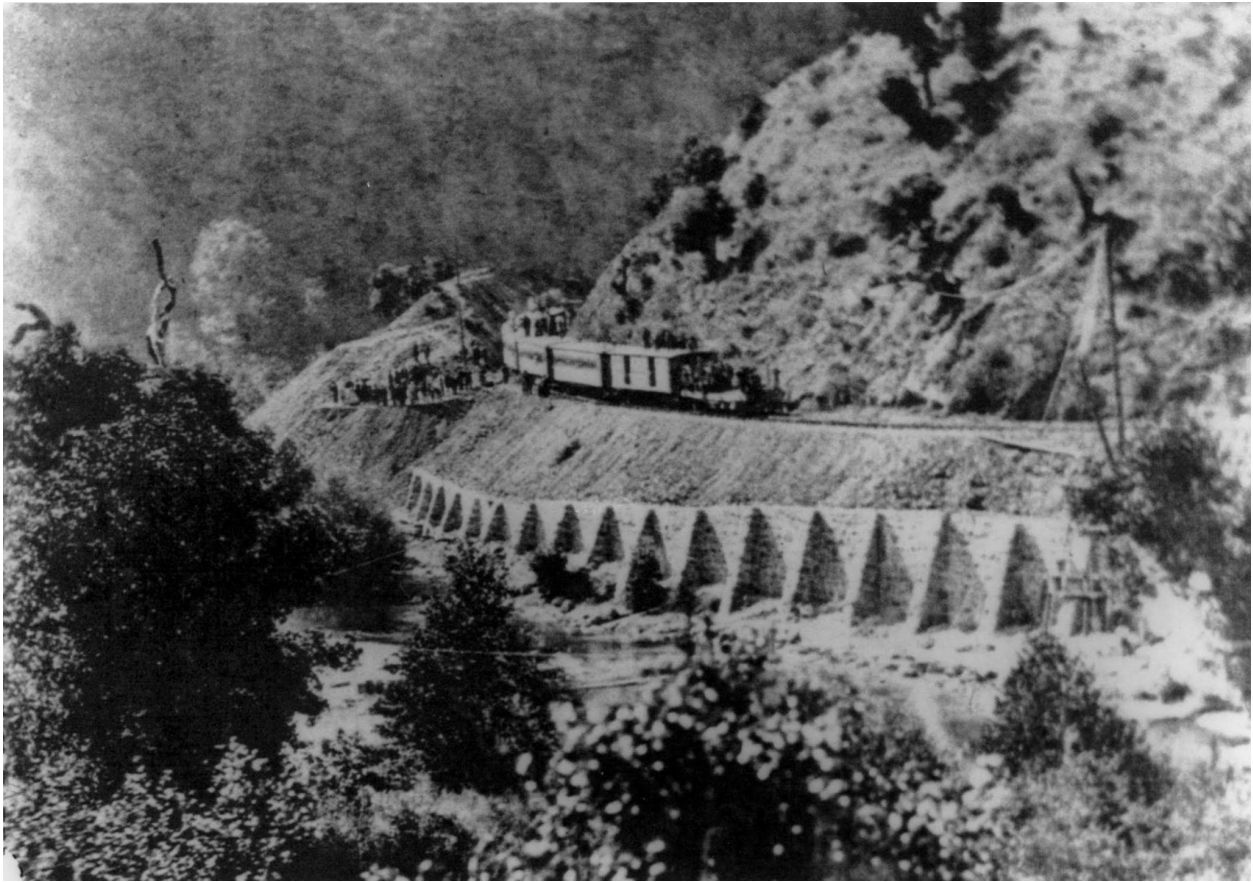


Fig. 7. “Some of the embankments are over fifty feet in height, and are retained at the bottom by huge walls of solid masonry.” The Cox gang built this large dry-laid buttressed stone retaining wall near MP 32.7 from locally quarried coursed sandstone. It is still in use, although it is covered with fill and overgrown vegetation. The train was one of the first trains in the Cañon and its occupants are inspecting the retaining wall. Note that the train backed up into the Cañon.

Photo: Clyde Arbuckle collection, courtesy of Randy Hees, who dated this J. H. Heering photo as October 2, 1866, when federal commissioners (Governor Frederick Low, Josiah Johnson, A. M. Crane) ⁵² were inspecting WPRR's first 20 miles of track from San José to the middle of the Cañon (MP 32.75).

⁵² *Sacramento Daily Union*, Volume 32, Number 4839 (1 October 1866)



Fig. 8. The Arroyo de la Laguna Bridge (MP 36.87, looking northeast) -- the fourth bridge up Alameda Cañon along the WPRR line. Although it was more than four miles up from where the Cox tracklayers stopped at the San José 20-mile mark (MP 32.75), it appeared that the Cox masons continued their work further upstream and completed the stone piers and abutments of the fourth bridge. Thus, the original Arroyo de la Laguna Bridge was a structure built by two different gangs: the Cox gang built the stone piers and abutments in 1866 and in 1869 the Ryan gang built the rest of the superstructure on top of the stone infrastructure.

Photo: dated 1898, from Pacific Locomotive Association collection, courtesy of Alan Frank

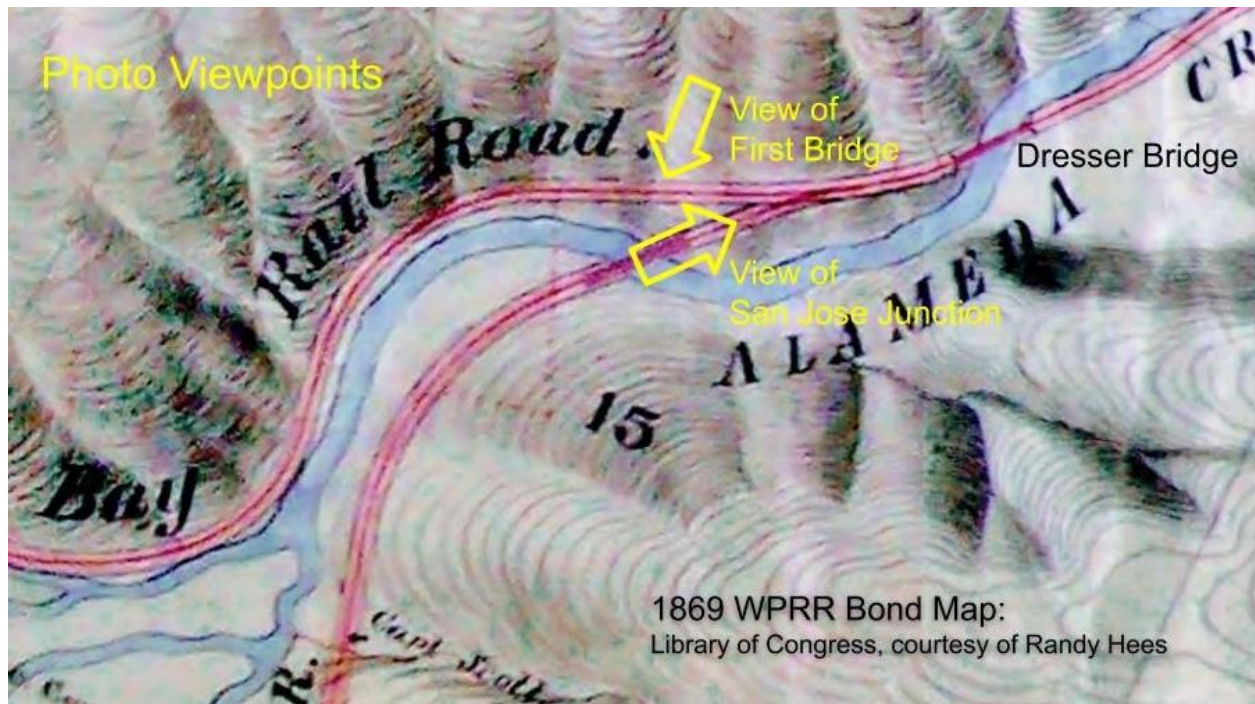


Fig. 9. On the west end of Alameda Cañon was the San José Junction at MP 30.6. In the map above, the two viewpoints of the next two photos are shown by the two wide arrows, respectively. The first photo to follow (Fig. 10) was taken from the north hillside looking south over the Cox gang's first bridge with the Strobridge gang's track in the foreground. The second photo to follow (Figs. 11-12) was taken from the eastern end of the first bridge, perhaps from the truss on its south side, looking west at the San José Junction in action. Both photos are rare, extraordinary, and new to the author.

Map: cropped and annotated by author from the 1869 WPRR bond map; Library of Congress, courtesy of Randy Hees and Alan Frank. Verification of the viewpoints by the use of Google Earth, courtesy of Janet Barton (for both photos to follow) and Randolph Ruiz (for the San José Junction photo).

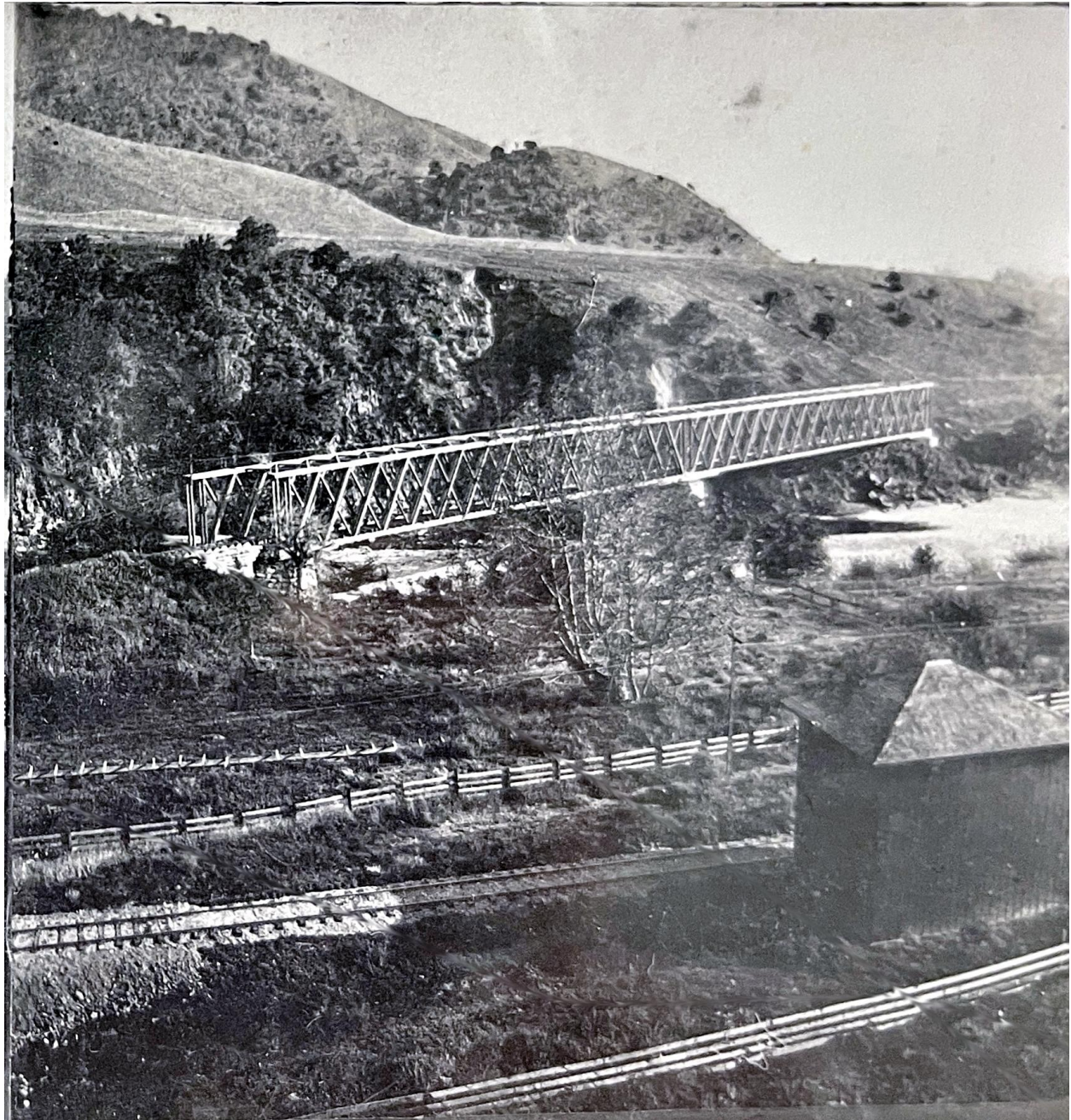


Fig. 10. The first bridge with its wooden Howe's truss, gleaming in the setting sun, "*light, strong and elegant as a work of art.*" It was built by the Cox gang in 1866, inaugurated September 6, 1869 as part of the San José branch, deactivated April 28, 1870, and later destroyed. Foreground: the main line built by the Strobridge gang in July 1869 and inaugurated September 6, 1869. Beyond the right-of-way fence: the flume (white) heading to Vallejo's Mill (off photo to the right). Building at the bottom right: water tower (identification courtesy of Randolph Ruiz)

Photo: cropped stereograph "North of Alameda Crossing" by M. M. Hazeltine, from Dr. Robert Fisher collection, Washington Township Museum of Local History, courtesy of Janet Barton.



Fig. 11. San José Junction from the first bridge in Alameda Cañon, looking west. In 1866 the Cox gang built the first bridge and Dresser Bridge (just obscured by ridge). The train in photo was on the 1866 track heading to the eastern end of the first bridge (San José branch); note the bridge's eastern abutment sticking out on the lower far left. In June 1869, the Strobridge gang built a new main line from the San José Junction, "about 100 yards above the eastern end of the lower [first] bridge, and running down the creek on the north side, hugging around the sides of the hills with a gentle sweep into the [Alameda] valley." The Strobridge gang's new main line in the photo was against the hillside cuts and led to Alameda valley (off photo to the left).

Photo: cropped by author, right half of stereograph "Alameda Canyon and Niles' Station (stereo-3430) date 1869", California State Library, accessed August 2, 2022 by author.



Fig. 12. Blowup of track section of the San José Junction; numerous interesting details can be seen; some observations from left to right on the photo:

1. Building with no foundation for station agent to receive orders and shelter from the elements.
2. Wood-burning steam locomotive, baggage car, passenger car with clerestory, to San José.
3. Box car on spur; behind it, stacks of wood logs, between San José branch and the main line.
4. Tops of train cars on main line, with steam from locomotive near ridge and Dresser Bridge.
5. Cultivated land (below box car on spur and to the right) possibly for and/or by station agent.
6. Flume (below cultivated area) heading left into culvert (below baggage car) to Vallejo's Mill.
7. Right-of-way fence (below flume line), very ragged in spots for fence only about 3 years old.
8. Photographer on a level higher than the top of passenger car, perhaps on first bridge's truss.
9. Rare photo; San José Junction active for only 8 months, September 6, 1869 to April 28, 1870.
10. Photo is dated: 1869. If this date were accurate, the photo could be narrowed to a 4-month window, September through December 1869.
11. Photo is titled: "Alameda Canyon and Niles' Station". Handwritten on verso: "Alameda Canyon renamed Niles Canyon after C.P.R.R. completed line and station at mouth of canyon", with no further attribution and information. The station at San José Junction was initially known (September 6, 1869) as "Vallejo's Mill"; this station in the Cañon was renamed as "Niles" no later than December 1869.⁵³ If the title were literally accurate at the given date of the photo, then the photo could be narrowed to a month, December 1869.

Photo: cropped by author, Some of the observations courtesy of Randolph Ruiz and Tau Alpha.

Preservation master is available from the California State Library website

https://delivery.library.ca.gov:8443/delivery/DeliveryManagerServlet?dps_pid=IE4978

First accessed August 2, 2022 by author. It was hidden in full view.

⁵³ *Daily Alta California*, Volume 21, Number 7205 (12 December 1869). For more discussion about Niles, see e.g., Victor K. Wong, "A tale of two junctions: the birthing of Niles, 4 June 1869 to 28 April 1870," (December 2020)