WESTERN PACIFIC'S
Western Division
1910 --1930

Virgil C. Staff

The Union Pacific's control of the Oregon Short Line (1899), and of the Central Pacific (1900), enabled Edward H. Harriman to regulate northbound and westbound traffic to Ogden. Harriman also controlled most eastbound business by his ability to charge shippers a local rate if they transferred traffic to the Rio Grande at Ogden. George Gould consequently was essentially impelled to build his own railroad westward to the coast. In order to conceal his plans, Gould did all possible to maintain a low presence. In this quest to reach the West coast, the construction costs of the new road would be tied to the Denver and Rio Grande.

The Western Pacific Railway Company was organized on March 3, 1903 in the state of California, and incorporated in the same state on March 6 of the same year. George Gould secretly financed the surveying parties. Virgil Bogue, when working for the Union Pacific, had earlier been out in search of a route west. Gould now put Bogue in charge of choosing a route, and he ultimately settled on a plan for a corridor with a one-percent grade. Bogue wrote E.T. Jeffery of his proposed route, and Jeffery wrote back that sufficient funds were available for the construction of the new road. In the bond trust agreement, it would be stated that the new grades must be no greater than one percent compensated with curvatures no greater than ten degrees.

In 1905, Gould took over the San Francisco company. The new road was headed by E.T. Jeffery of the Rio Grande, with Walter Bartnett as vice-president. General offices were in the Safe Deposit Building in San Francisco. Construction began in the fall of 1905. The E.B. & A.L. Stone Company built the line west of Meyers Street in Oroville, with the Utah Construction Company responsible for the remainder. A wagon road, between Oroville and Spanish Creek, was constructed above the proposed right-of-way in order to lower equipment and supplies to the men. Construction forces pushed forward at a feverish pace in order to complete the project before the Rio Grande ran out of funds. On February 1, 1908, the Western Pacific headquarters was moved into the Mills Building. Local freight service between Salt Lake City and Shafter, Nevada was initiated during the same year, but the expected date of September 1, 1908, for the opening of the line, was delayed by difficulties in tunnel construction. The rails were finally joined at MP 280.81 on November 1, 1909, and the railway was turned over to the Operating Department on December 1, 1909. Western Pacific's marketing department signed numerous traffic agreements in the early period, including contracts with the Santa Fe, the Pacific Coast Steamship Company, and the Toyo Kisen Kaisha. Freight operations began with the driving of the last spike, and through freight service was begun in December, 1909. Delays were continuous. Engineer Charley Ellis, who fired on a construction train just east of Oroville, informed the writer that the first westbound freight down the Canyon went on the ground something like 20 times before arriving in Oroville.

Various old-timers have spoken of drifting snows at Portola in the early period. Trenches were cut on the platform to enable passengers to board the passenger trains. Stanley Borden reported of slides and snow in the Canyon on January 17, 1911, with 200 men attempting to keep the line open. A rotary snowplow was brought in from Pueblo, and there were six and one half feet at Hartwell, later known as Quincy Junction. Belden station was abandoned due to fear of a threatened landslide. On the next day, a westbound passenger train was stalled at Portola. 500 men, and four locomotives, were attempting to cut through the snow, and the work down the Canyon was delayed by landslides.

The first president of the WP was Walter J. Bartnett who served from March 3, 1903 to June 23, 1905. But in the early period discussed by this paper, the functioning president was Edward T. Jeffery, second president, with service to the company between June 23, 1905 and November 6, 1913. Jeffery was also president of the Rio Grande.

Following construction, a re-survey was made of the line which, in some locations, differed considerably from the previous construction sections. Total mileage from San Francisco to

Salt Lake City was 921.6 miles, with the Carbona to Tesla branch of 13.2 additional miles. The right of-way had been laid with new 85# Open Hearth steel, and some 85# Bessemer, both manufactured between 1906 and 1909. In 1914 there was some 141# girder rail, and yard tracks and sidings were largely laid with relay varieties off the Rio Grande, including old 75# (1889-1902), 65# (1889-1895), 60# (1889), 56# (1895), and some 40# manufactured in 1881.

Cross ties were 7"x8"x8'. All were untreated, and in 1912, in extensive sections, they are known to have been mostly of hewed California Pine and Redwood. As late as 1930, there were hewed ties in the main with flat top and bottom, and bark facing forward and back. The number of track ties per mile in the main track varied from 2900 to 3100 ties, and there were no tie plates or rail anchors. Ballast was normally nine inches below the tie, and was composed mostly of various grades of gravel, decomposed granite, and dirt. On the Western Division, sources of ballast, in the very early years, were primarily Niles Pit, Kerlinger, Oroville, Doyle Pit, Sand Pass, and Sulphur. According to Arthur Carlson, who came to the service in 1937, and was promoted to Chief Engineer on November 1, 1965, "they didn't crush the early ballast, but just took it out of the pit. So there was lots of dirt in it. Sand Pass gravel was an improvement, but it was soft, flat, and was not angular. It slid under the tie instead of gripping it."

Every few miles, between Oakland and the Salt Lake, there lived small gatherings of employees who maintained the track structure and right¬-of-way, or who provided train orders to the trains. These tight little communities stretched in a thin line along the main for more than 900 miles. It was a lonely life for most, but one that must have had its forms of remuneration. In the very early years, there was some variation in section limits, but this shortly became more or less stabilized, and the statistics appear thusly: 12 sections each for the First and Second Districts, 20 for the Third District of the Feather River Canyon, and 14 for the Fourth District between Portola and Gerlach. This equates out to an average number of miles per section, in each district, of slightly more than 7 miles for the First District, 9.5 miles for the Second, 5.75 miles for the Canyon, and 7.84 miles for the Fourth District between Portola and Gerlach. As an example, the ¬sections on the Third District were Oroville, Bidwell, Bloomer, Berry Creek, Blinzig, Poe, Pulga, Cresta, Rock Creek, Tobin, Belden, Rich, Virgilia, Twain, Keddie, Quincy Junction, Spring Garden, Sloat, Blairsden, and Clio. Gerlach was the easternmost point on the Western Division. Gerlach had an earthquake about 1928 or 1929, and Jack Bellows remarked that it rocked the town sufficiently to take the roofs off the tanks, and to rock half the water out of the tanks.

Most sections possessed one section house for the foreman, one bunkhouse, one or two pit toilets, one tool house, and one coal house. Eventually some sections received a store house, and all came to have one or two telephone booths. Where there was a water tank, there would be a pump house and possibly one or two other structures. The presence of a depot, and semaphore, meant there would be more pit toilets, and additional structures for operators. Some sections had a double bunkhouse, and many eventually received a motor car house. Powder houses were built throughout the Canyon. Belden came to sport a reinforced concrete sand house, and some sections received a pump house to pump their water. Many sections received a mail crane to enable and expedite contact with the outside. These structures were spaced in an organized fashion, and in time they were attractively painted. Together, these structures, in addition to the inhabitants, made up something of a small village. When there were insufficient buildings for the operators, tents were erected.

During Construction, some structures had been erected quickly with the idea they would be replaced when the carrier began to bring in revenue. These buildings were very cold in the winter, but hung around on the railroad for more years until they could be replaced. Many Construction structures were unpainted, thus providing the carrier with additional expenses, in addition to all the Betterment expenditures required, in other areas, for new spurs and packing houses, stock yards, loading platforms, paved streets, and sidewalks. All roundhouses had dirt floors.

Most sections had a section foreman, and at least four to six laborers. The presence of a double bunkhouse meant there would be more. As late as 1930, it is known that some sections temporarily had as many as 20 men. When times were good for the carrier,

and there were numerous trains, the forces grew in size. In bad times, they were reduced almost to the point of being ineffectual. In 1924, for at least a time, every other section was reduced to one foreman and one laborer. Outfits were even shorter of space than the sections, although the gang foreman had his own quarters. Arthur Carlson has explained that it was a kind of caste system. The section hands lived in the bunkhouse, and the foreman had his own home.

In their spare time, one of the initial projects of many sections was to plant trees for beauty, and especially for shade. Some bunkhouses initially had no ceiling, and these could become very warm during the summer months. Many section foremen planted flowers, and generally attempted to beautify the property. Water was always a priority, especially east of Portola. Sections without wells received water barrels sunk in the ground. A "Water Barrel Local" traversed the line weekly, and brought supplies and filled the barrels. Ultimately the railroad replaced those barrels with redwood, zinc lined water cisterns with a pump. Capacity of the cistern was 3926 gallons.

Many sections became pleasant havens from the elements. Some foremen had wives and children, and it must have been a delightfully sylvan domestic scene to watch the women hanging out the wash, and the children enjoying the swing their father had installed from a branch of one of the shade trees. A few section foremen are known to have possessed small libraries. One foreman's library contained a Bible, two or three books on mathematics and geometry, and a number of books on geography and literature. Many sections had their own gardens for fresh vegetables during the summer months. During other parts of the year, a secondary passenger train sometimes dropped off fresh fruits and vegetables. In some very isolated sections, in addition to the gangs, there was considerable dependence upon the Moen Commissary, later replaced by M.C. Threlkeld.

The men of the extra gangs lived solitary, strenuous lives, with little time for their own pursuits. Each gang was led by a foreman who possessed because he would start throwing bolts and other items out. He just tossed them out. He would just turn his head, while riding a section car, and spit. One guy complained that Nels had hooked on a trailer, and made the guy sit on the trailer. At the end of the day, he would holler once and never again. If you didn't quit working, because you didn't hear him, he wouldn't say it twice. When he saw guys working, after he hollered, he would say: 'Damn fools don't know when to stop.' He would repeat himself a half dozen times while walking back and forth, so there was no question about what he wanted done. He had his own idea about how much work the guys should get done that day, and when they completed the work, you would sometimes see the gang sitting around waiting for time. When he went out in the morning, he knew what he intended to get done-nothing more. When he was nervous, or deep in thought, he would pace back and forth spitting huge wads of tobacco juice.

Gang foreman N.A. McPherson "had a terrible temper, and he would throw his hat down on the ground and stomp on it." B&B Foreman Walter E. Dommes had "beautiful handwriting. He had a big, stubby hand. When he held a little pencil in it, you couldn't believe he could write. Dommes usually had a snooze can in his hand. When he came out in the morning, his pants were pulled very high, but by noon he looked like they were about to get lost. They were about off. After lunch they were pulled high again, but about off by the time to quit. You could almost tell the time of day by the hang of his pants."

Back on the sections, most were remotely located from large population centers, and a common pastime on Sunday afternoons was the playing of cards, dominos, and checkers. Sometime in the early years, the men at Bloomer built a suspension bridge across the river to connect the railroad with the highway. On weekends, they would go out to the highway and thumb rides into the big town of Oroville. At Berry Creek, and other nearby localities, the men would pack up in the freight trains to be taken into town. Anyone in the lower part of the Canyon could procure groceries at Pulga, Belden, or Keddie, and Gordon Switzer, and others, have fondly recalled Mrs. Lil King who ran the bar and restaurant at Pulga. Hungry trainmen sometimes stopped their trains at Pulga, as they did at Spring Garden where there was a Cafe used daily by the railroaders. There was always a substantial material yard at Pulga, Keddie, and Spring Garden.

In spite of the isolation, at one time or another there was entertainment in the Canyon. Camp Rodgers was a classy place, and one could only arrive there by train. There was a fishing pond near the bar at Tobin, with fish brought in from the hatchery in Oroville. Virgilia had a restaurant-bar and saloon, and was well-frequented on weekends. Jack Bellows recalled that his friend, Monte Blue, had once stayed in the Paxton Inn, which showed the kind of discrimination he liked. There was a dining room upstairs for some, and another in the basement for the lumberjacks. There were, according to Jack, "some real cute gals as waitresses," and what impressed Monte Blue the most were the red bar stools. Bob Failing and John Hicks have recalled that Paxton and Virgilia were "deader than a mackerel on week days, but let Saturday night come and people seemed to come out of nowhere. These were swinging places on Saturday night." They also recalled that "marriage at Portola and Keddie weren't worth a fig. The guys were out for long periods and the gals couldn't take it." Engineer Robert Turner remembered that Portola had a reputation as "the only place in steam days where it was just as legal to sleep with one guy's wife as with another. Portola was wide open. There was the House of Blue Lights, and the House of 7 Steps which probably had four gals and a madam." Turner recalled that during the Depression, and during other hard times for the men when they were laid off, many of them were kept alive by the girls who served them previously.

But things were not good for the new road. Operating revenues were disappointing, and while the railway was new, it immediately began falling apart. There were washouts and slides, with tunnels collapsing sufficiently often to tie up the road. The yards filled up with trains at Oroville and Portola, and the men did not arrive home for days and sometimes weeks. No wonder that many carried their bottles. The management was firm in its stance against alcohol, and drunkenness was always one of the major priorities on the list of W.R. Groom, the Chief Special Agent who prowled the system. As to management's view of the road, the problems were not solely on the Western Division. On the Eastern Division, east of Gerlach, there was no Feather River Canyon, but there was Wendover hill, and there were the deserts. The line across the lake was sinking, and washing away from the pounding of the storms. The main across the salt flats was sinking, and sometimes under water. Westbound trains into Wendover were often covered with salt on their north side, and in the distance they looked like moving white lines.

In 1912, the WP had 44 tunnels in a stated aggregate length of 45,546 feet. Tunnel 22-1/2, at MP 262.5, between Tobin and Belden, was built as a rock shed in 1912, and was retired by AFE 85-28. This appears to explain the presence of 44 tunnels, whereas after 1928, the number would have been limited to 43. There were 41 steel bridges, many of which were still unpainted, and 425 wooden trestles. Most of the bridges were no immediate problem, but the tunnels posed a continuous threat to keeping the line open. There was a tremendous amount of tunnel re-timbering in 1910 and 1911, and the Spring Garden tunnel provided continuous threats of closure. According to John Howard, the "problem in the very early years was largely because the ground gravel was so heavy. The water made it heavier, and they couldn't maintain the timbers. This is the reason for concreting it. The timber was breaking up faster than they could put it in." The Chilcoot tunnel was also an early problem. The bore was surrounded by "lots of decomposed granite. The weight was not too bad, but it was always falling down and had to be lagged good. There was lots of water here too. They lost the tunnel a number of times because the decomposed granite kept coming down with rocks and boulders. Huge boulders would drop down upon the men and the tunnel was lost a number of times while re-timbering."

The heavy re-timbering and concreting continued through 1914, and tunnels 1 and 35 began to receive concrete. On May 29, 1912, a fire closed down Tunnel 37, and a 2.93 mile shoofly was built over the hill. Slides almost continuously came down on the track at MP 262.6, and in 1913 a rock shed of heavy timber was completed to protect the rails from slides. 700 feet of concrete lining was placed in Tunnel 35, exhaust boards were built into the roofs of all tunnels between tunnels 4 and 36, and the same timbered tunnels were repacked. By June 1914, tunnels 4 and 35 had automatic signal protection. These were one arm, two position semaphore type electric signals. In 1914, according to AFB 954,

timber lining was placed in the unlined portion of Tunnel 25. Tunnel 27 received concrete portals, and 60 feet of concrete, and the timbers were renewed in tunnels 1, 31, 32, 33 and 37. In such work there were always priorities since there was a mass of work ahead. The work was done that was necessary, and where possible it was held over to another year. Only what was absolutely required was completed since there was always the factor of money. The chief aims were to upgrade the road, to establish direct operating expense savings, to protect the existing traffic, and to gain additional traffic. The greatest problem was to assure that expenses did not exceed revenues.

The carrier continuously strove to increase its revenues. Packing houses were constructed west of Oroville, and platforms at various other locations. To tap into new business, roughly 55 industrial spurs were laid in 1910, 66 in 1911, and 23 more in 1912. There was much grading of depot and packing house platforms, and most of the buildings necessary around the roundhouses had not yet been built. This called for roads and walks and underground piping. Many facilities along the system had not been completed, including lavatory buildings. The yards were not yet filled in, and miles of fencing were required to protect cattle from the trains. The Jeffery Shops were not completed until July 12, 1913, and most locomotive repairs took place at Oakland and Portola.

There were operating revenues, but the maintenance of the line consumed profits to the extent there was no ability to fund the interest payment on the bonds. Income for 1912, 1913, and 1914 was insufficient to pay the interest on the first mortgage bonds for even one year. In 1913, the Missouri Pacific, Rio Grande, and Western Pacific were combined to form one system. President Jeffery was replaced by Benjamin F. Bush, third president of the WP, on November 6, 1913. Bush was an anti-Gould man, and now in control of the three railroad operating system. The eastern bankers hated Gould, but allowed the Rio Grande to control the WP as long as it paid the interest on the WP's first mortgage bonds. Failure to do so would put control in the hands of the Equitable Trust, and ownership in the hands of the bondholders. By the close of 1913, the Union Pacific bankers had taken control of the three-railroad system, and Gould no longer held significant influence.

During the first half of 1914, the WP books were in the red to the amount of $138,398.94. There was also the matter of the $1,250,000 bond interest. The Rio Grande paid this interest on September 1, but it was clear that some reorganization was necessary. Near the close of 1914, the bankers requested some change in the financial responsibility of the parent company. What the bankers wanted was for the WP to go into receivership and foreclosure. The Equitable Trust Company (Trustee) would then purchase the property for a minimal sum.

On March 1, 1915, the Rio Grande failed to pay the semi-annual interest due on the First Mortgage bonds. On the following day, receivership was requested with Frank G. Drum and Warren Olney, Jr. to hold the property. This was done with great haste before the other creditors could apply. President Bush was fired effective March 4, 1915, and Charles M. Levey was appointed to become WP's fourth president on July 14, 1916. The receivers operated the property between March 5, 1915 through July 13, 1916. A public auction sale was held in Oakland on June 28, 1916, and the property was transferred to the new Western Pacific Railroad Company on July 14, 1916 in line with the agreement between the purchasers and the WP dated July 14, 1916. The bondholders, who would profit by this sale, were anxious to prevent delay since the WP was now making money, and they wished to drive down the property value. There was much skulduggery, but ultimate price for the railroad was set at about $18,000,000. In this transaction, the Rio Grande lost its $50,000,000 investment in the WP, but it continued to have obligations. The purchasers of the new WP stocks had chartered two organizations on June 6, 1916, the Western Pacific Railroad Company, incorporated in California, and the Western Pacific Railroad Corporation incorporated in Delaware. The corporation, a holding company, controlled the railroad company, because it owned the railroad's securities, other than those held by the directors. The property was actually delivered to the railroad on July 14, 1916. Control of the railroad was direct.

A new first mortgage was floated of $50,000,000. $20,000,000 of this were 5% bonds that would come due on March 1, 1946. These sold at 90% which provided the $18,000,000 to purchase the railroad. The bond

interest of the previous company had taken most of its net income, but the new company was now free of most of this debt. One of the biggest problems of the previous company had been its shortage of branches. In time, the new company sought to remedy this by purchase or construction of a series of branches. Among these were the Boca & Loyalton, Indian Valley, Deep Creek, two-thirds of the stock of the Tidewater Southern, San Jose Branch, Reno Branch, Tooele Valley, Ellerbeck Branch, Calpine Branch, Sacramento Northern, a joint operation of the Alameda Belt Line, San Francisco-Sacramento Railroad, a joint operation of the Central California Traction, Terminous Branch, Northern California Extension, and various other branches.

The WP was now faced by most of the problems that had dogged the previous company. Other than for the steel and ballast, the majority of the structures were composed of untreated wood. T.J. Wyche, third Chief Engineer of the carrier, had realized that if they could just hold the railroad together for fifteen years, and keep it open, it would still deteriorate into nothingness. There were the wooden bridges composed of untreated timber, and there were the tunnels, many in a state of near collapse. The cribbing through the Canyon, continued to move, and slip, and deteriorate. Ballast over most of the railroad was composed of decomposed granite and dirt, and the roadbed had insufficient drainage. Hundreds of wooden box culverts required renewal, and the untreated cross ties, many of which had initially been second-hand, now required renewal in monumental numbers. The service life of an untreated tie was found to be about eight years, and with the poor sub-grade areas, and the constant problems from underground conditions, tie-life could not be expected to be extended. During the next few years, essentially all ties would require changing out. The task must have seemed an almost insurmountable one, and the only hope was to have sufficient Betterment funds each year to put off the ultimate day of reckoning when the need for replacements could be expected to all arrive about the same time. The road was constantly facing the grim reaper, and with a paucity of funds, everything had to be deferred until it was either failing, or shortly likely to fail. These financial problems faced all departments. In the beginning, most or all the rolling stock belonged to the Rio Grande, and was sadly deteriorated. The mechanical department was faced with huge outlays for equipment of its own, and the derailments, and wrecks, and boiler explosions must have been depressing.

The threat of fire hung heavy in the minds of the management. Tunnel 37 had burned in 1912, and there was a big fire in the yards at Deliver on August 13, 1915. In the coming years, various trackside structures were destroyed. Moreover the Gerlach roundhouse was destroyed on October 29, 1914, and again on October 19, 1927. The Quincy depot went up in flames on September 3, 1922, and the fear of fire was rekindled on September 11, 1928 when a raging fire swept over the Spring Garden tunnel.

According to Arthur Carlson, a constant source of information over the years, the original designers of WP's steel bridges "had used a Coopers E-50 design load and impact factor up to 100 percent, with tension working stresses of 16,000 lbs. per square inch." For the period, the bridges were considerably over-built. They had been designed with the steam engine loading in mind, and with only one major stress cycle per train. Western Pacific Class I consolidations (1906) had a total loaded weight of 364,000 lbs. over a total wheel base of 58'-6", 201 Class compound mallets (1917), weighed 641,660 lbs. over 86'-5-3/4", and the 316 Class of mikados (1923), weighed in at 506,400 lbs. over a wheel base of 73'-1-1/4". The 316 Class was the first class of mikados to appear on the Western Division, and the following three classes of mikados were only minimally heavier. Bridges built between 1918-36 were comparatively less heavy than the original bridges, but would handle an E-60 loading.

Most the problems lay with the pile trestles composed of untreated timbers. Replacement of temporary trestles was by some other form of more permanent track-carrying structure, by filling and replacement with concrete or corrugated iron culverts, or with frame bents. Some bulkheads were just renewed, but many timber piles were replaced with redwood or concrete. A common practice was to replace pile bents by frame bents, or concrete foundations. Many bridges received concrete footing blocks to prevent decay. There was increased replacement of span pile trestles, with concrete abutments and footings. Some bridges received steel "I" beams. The height of some bents was

increased, and at times a stringer was added. After 1923, guard-rails were increasingly installed, and more bridges received walks and handrails in order that trainmen could make inspections of cars while standing on the bridges.

Of interest, in addition to AFE dates, are a few constructions in various familiar locations: the east Altamont bridge over the Southern Pacific replaced with a steel girder (1913), the filling of 32 spans of frame trestle at Spring Garden loop (1914), the Chandler Creek Viaduct just east of Quincy Junction (1915), the filling of 133 spans of temporary trestle at MP 4.63 (1915, 1918), concreting the subway at MP 293.71 (1918), retirement of the 800' trestle, and construction of a steel viaduct at Bridge 280.27 west of Keddie (1923), and the 16' concrete arch-culvert at Bridge 363.33 east of Doyle. In 1927, the Spring Garden 3% detour line of 2,044.5 feet (MP 294.14) was abandoned and taken up. Since that time, no one has yet located the alleged November, 1907 switchback reported to have been constructed around the tunnel.

M.R. Krutzinger was Supervisor of B&B at least from 1911 into early 1915. C.P. Gilmore moved into this position in the same month, and was followed by Harry McFall who held the same position at least as late as 1930. In the meantime, Gilmore was promoted to General Supervisor B&B from May 1, 1924 until January 10, 1937. During most of the early years, T.J. Wyche served as Chief Engineer, and was followed, on August 2, 1921, by J.W. Williams, off the Northwestern Pacific. Arthur Carlson comments that Williams brought in H.M. Smitten as Bridge Engineer, and B.J. Simmons, both of whom brought tremendous expertise to the Engineering Department. Smitten' s service dates are September 5, 1921 to December 31, 1946, and Major Simmons served from January 11, 1924 to September 1, 1946. Tom Phillips, future Chief Engineer, and who had been around since Construction, was Principal Assistant Engineer. All these men were totally absorbed in maintaining the physical plant. Undoubtedly the most pressing problems were created by the tunnels.

Following receivership, tunnel work continued each year. It has been seen that even by 1911, many of the untreated timbers were badly broken or decayed. The heavy pressures of the ground on the tunnel timbers created improper clearances. Timbers cracked like matchsticks, and sand and boulders poured in through the arch segments, and through the fractured or collapsed lining along the sidewalls. Tunnel 1, 35, and 37 were especially troublesome, and various other tunnels presented their own problems. John Howard has explained that, in some tunnels, the presence of moisture and mud meant constant pressure and squeeze against the lagging. There was no air space and the freeze and thaw of the mud fractured the timbers, and closed the line to traffic. There was considerable movement of the timbers in these tunnels, and it was clear that the ground could not be held with timbers.

The problem was pervasive, but revenues did not allow for any massive program of concrete work. Consequently, some tunnels were retimbered, and others received concrete in portions that were failing. Over the years, tunnels were concreted, portion by portion. Unlined portions received lining, and there was an almost continuous renewal of tunnel sets and rotting portals. So much work was ahead at all times that essentially all work was deferred that wasn't considered as a candidate for failure.

Tunnel 35, at Spring Garden, continued to fail, and a river of water poured down into the occluded bore. The tunnel had been timbered in 1910, and again in 1911, but concrete work began in 1911, and continued in 1912, 1913, 1916, and was completed December 31, 1918. Most of the work in 1918 was done by gangs of Dave Charlebois, Charles Murphy, and LB. Hoffmire. On August 4th, 1918, J.P. Quigley sent off a telegram to J.S. Spelman: "ACCIDENT SPRING GARDEN FOUR CROSS BARS IN ROOF GIVING WAY, ALLOWING DIRT AND ROCK TO COME DOWN IN CUT NO 1, 170 FEET FROM WEST PORTAL. TRACK CLEAR AT 5:10 AND INJURED MEN SENT TO PORTOLA HOSPITAL ON EXTRA 201 EAST AT 5:10 PM. EXTRA 201 EAST WP MANIFEST TRAIN DELAYED SIX HOURS, NO OTHER TRAINS DELAYED. JUMBO AND ONE CAR BADLY BROKEN. WILL ADVISE NUMBERS AND INITIALS THESE CARS IN AM. G-143." On August 5th, C.P. Gilmore, at Spring Garden, wired J.P. Quigley as follows: "I FIND THE CAUSE OF CAVE IN AT TUNNEL NO 35 YESTERDAY, WAS ACCOUNT OF ONE SET OF OLD TUNNEL TIMBERS

GIVING WAY FROM UNDER CROWN BARS OVER CUT BEING PREPARED FOR CONCRETE. THE OLD TUNNEL SET PROVED TO BE VERY ROTTEN, BUT FROM INSIDE APPEARANCE SEEMED TO BE SOUND, BUT GAVE WAY WITHOUT ANY WARNING. JUST ONE OF THOSE THINGS THAT HAPPEN OCCASIONALLY AT THIS KIND OF WORK AND CAN'T BE AVOIDED…." Much of the work of these gangs was very dangerous, and Jack Bellows often commented: "In those days of iron men and wooden bridges, the guy who could jump the quickest was the guy who lived."

Gilmore was reminded he was also to watch the condition of tunnels on the Eastern Division, and a report was shortly issued in which he found the tunnels required considerable renewal. Carl Nelson was sent out with a Western Division gang, and there was work there, every year, between 1918 and 1924. On May 13, 1923, an extensive washout occurred on the Lake, and Nelson's gang helped close the gap. On the Western Division, Gilmore wrote to Ed Mason that he had 2000 12"x12"x16' timbers ordered for retimbering, "as the timber is just about the same condition as it was in 1911." There was a cave-in at T 29 in 1927 with the ground breaking down the timbers and filling the tunnel section with rock and dirt for a distance of 50 feet. P.C. Sibley's gang handled this, and the line was closed for three days. On September 19, 1929, a fire destroyed the east end of Tunnel 1, including the portal and 187 feet of timber lining. This work was done by Charles Martin and Tunnel Gang #1, and was completed on April 30, 1930. At the close of 1929, the tunnel situation was reported to be as follows: 45,558 liner feet of tunnel with 9841 feet in solid rock, and 13,612 feet in concrete. The remainder was of untreated timbers.

When a tunnel was to be concreted, or even re-timbered, there were the usual, friendly discussions between maintenance-of-way and the superintendents. As one tunnel foreman wired in 1911: "IN THE FIRST PLACE, IT WOULD BE NECESSARY TO HAVE TWO STRETCHES CLEAR TIME OF THREE OR FOUR HOURS EACH TO WORK IN THE TUNNEL. THIS COULD BE EITHER DAY OR NIGHT WHICHEVER FIT IN WITH THEIR TRAIN MOVEMENT THE BEST." The transportation department wished the trains to avoid delay, and the tunnel foremen had large gangs who were paid even when waiting. In May, 1928, General Manager Mason wanted to know why the trains were being delayed at Tunnel 32, then having 200 feet of timber lining replaced with concrete. On May 1, P.C. Sibley, the gang foreman, wired Harry McFall as follows: "THE TRAINS DO NOT ALWAYS COME WHEN THE LINE UP SAYS THEY WILL AND I FIND IT NECESSARY IN ORDER TO GET SOME WORK DONE TO WAIT UNTIL THE TRAIN ARRIVES AS I HAVE TO KEEP ON WORKING UNTIL IT IS SAFE." On April 30, Superintendent T.E. Coyle wired McFall: "FRUIT TRAIN SUNDAY ARRIVED TUNNEL WEST OF KEDDIE 410 PM AND DELAYED THERE UNTIL 5 PM BY TUNNEL GANG. WHY CAN IT NOT BE ARRANGED TO AVOID DELAY THESE FRUIT TRAINS. WE MUST GET THE TRAINS OVER THE ROAD AND SEEMS TO ME LITTLE FORETHOUGHT ON PART OF TUNNEL FOREMAN WOULD HAVE A VOIDED THIS DELAY. SEEMS TO BE NO EFFORT OR ARRANGEMENTS MADE BY YOUR DEPT TO AVOID DELAYS THESE TRAINS. WHAT ARE YOU GOING TO DO ABOUT IT? A-403". Sibley wired back to McFall on May 1, File V: "HOLD FILE OF APRIL 30TH. CONSIDERING THE AMOUNT OF EQUIPMENT TO BE MOVED, IT IS ALMOST IMPOSSIBLE TO LET TRAINS THROUGH JUST AS SOON AS THEY ARRIVE AS THEY COME INDEFINITELY AND SOMETIMES DO NOT GO THROUGH AFTER WE CLEAR." Tim Coyle then got on the dispatchers, and this was presumably the end of the conversation.

World War I added to the WP's deferred problems, and the carrier came under USRA control between July 1, 1918 and the end of February, 1920. The Southern Pacific controlled the carrier during most of this time, and for many years following March 1, 1920, when the carrier was returned to private ownership, there was a powerful residue of contempt for the SP. All of the justifications for this dislike are unknown, but it is clear that the SP had forbade any significant

expenditures not previously okayed, and WP employees believed various line closures were the direct result of being unable to make immediate expenditures that would have prevented the problem. Most obvious was the dismay voiced when innumerable AFEs were cancelled in 1918. The SP also forced WP passenger trains to use the SP mole, and all westbound symbols, between Alazon and Weso, were ordered to roll over the SP. Since there were many more SP trains than WP, the WP considered this to be a free ride for the SP, on WP rails, and at WP expense. On March 1, 1920, the WP management took over from the USRA. The railroad was in deteriorated condition, and eventually the government provided the carrier with $9,000,000 in damages. At about the same time, the WP Railroad Corporation purchased the Rio Grande on July 27, 1921, and the Corporation now controlled both the WP and the Rio Grande.

Timber cribs were widely distributed throughout the Canyon, and some showed evidence of failing as early as 1911. All cribbing was untreated, and it became badly decayed and unsafe for traffic. Opposite the cribs, the track settled badly due to deterioration, and sometimes the logs fell away. From the beginning, there was a policy of replacing these timber structures at the end of their useful life. The replacement was usually with concrete retaining walls. It is known that the following years received the following number of retaining walls: 1920 (11), 1922 (7), 1923 (2), 1924 (2), 1927 (5), 1928 (12), and 1929 (6). The construction of concrete retaining walls continued over the years, and concreting made possible substantial maintenance economies. When one traveled the Canyon in later times, the handiwork of the gangs was evident everywhere.

Almost from the beginning, the 7"x8"x8' untreated ties showed significant signs of severe cutting from the base of the 85# rail. This shortened the service life of the tie, in addition to a tendency to cut the field side, causing the rail to cant outward. There were no tie plates, and when they began installing a few 8"x9" plates after 1917, they were too small, although they helped. Initially, most plates were installed on bridge spans and curves, but as late as the 1930s there were rails without plates. Untreated ties continued to be laid throughout the period of this study, and their cost continued to rise. New pine untreated ties in 1915 were 0.423 each, and in 1924 were 1.0236 as compared with 1.5070 for a treated tie. Tie replacements each year were immense, and as early as 1914, the replacements for the fiscal year stood at 400,549 ties. Without rail anchors, the rails crept, especially in the Canyon, and west of Gerlach. A few anchors had been installed at Rennox during the USRA period, and the next applications came in 1922 with the inclusion of Henggi anchors between Phil and Gerlach. From 1922 to the end of the period, there were additional applications each year. Some Fair anchors were purchased in 1924, and no more Henggi anchors were apparently applied after 1926. The standard was stingy with the distribution of anchors, and in 1929, on the Third District, they began to apply six additional anchors to rail holding westward movements, and two additional anchors holding against eastward movement.

Adequate communications and transport of men and materials were essential to holding the system together. One of the locals usually brought in the supplies to keep working, but contact was required, not only within each section, but between sections. The motor car fulfilled some of this function. Initially most motor cars appear to have been Mudge cars, with a few Sheffield's and Budas. Most USRA period cars were Sheffields, and between 1920 and 1930, the WP purchased 118 motor cars. The first Fairmonts were acquired in 1923, and again in 1924, with additional Buda and Sheffield cars. There were motor cars all over the line to create additional headaches for dispatchers, and it is not to be wondered there were a multitude of motor car wrecks in the early years.

The primary contact throughout the system was through the telegraph and telephone. Western Union Telegraph provided the material, and the WP put in the poles and strung the wire. In 1910 and 1911, a #8 galvanized iron dispatchers wire was strung between Sacramento and Oroville. At the same time, a second iron wire connected San Francisco and Salt Lake. A third wire, Wire #20, connected Oakland Mole and Elko. Between Oakland Mole and Oroville, this wire was of #8 copper variety, but apparently most of the remainder of the line was strung with #8 galvanized iron. There came to be telegraphones in the terminals and sections. The telegraphones were on the iron wires, and according to Norman Menzies, repeaters

came to be located at Stockton, Oroville, Portola, Gerlach, Winnemucca, Elko, Wendover, and Roper Yard. In 1929, the WP was operating on 1643.51 miles of fully owned telegraph wire, and 2003.86 miles or telephone. The WP also used 1068.74 miles of line mostly owned by Western Union Telegraph.

There was a sharp recession in 1921-22, and throughout the early 1920's, every program was deferred that could be. Betterment expenditures had allowed management to put off the evil day, but the deterioration of the road was always evident. The correspondence indicates no evidence of discouragement, and the effort, each year, was always to leave the road in better condition than it had been before. But the top of the hourglass was gradually running out. Extensive sections of the road were covered with vegetation, and as an example, Negative #3 in the engineering department, showed an area 300 feet west of the Niles station, and an accompanying note read: "VEGETATION: Poppies 20%; Wild Oats 20%; Morning Glory 5%; La Falleria and common varieties 40%: 3" to 30" high." The spraying of weed killer along the main was minimal, but it is known to have had limited use in the beginning of the second decade.

Settling, due to material slipping out, was common everywhere, and the slopes had been giving away for years. Jack Bellows commented that by the late 1920' s, the wheel flanges were cutting the ties, and you could pull spikes out with your fingers, mile after mile. He remarked that he had seen 15 broken ties to a single rail length. In some areas of the main, one could not walk along the edge of the ties without breaking them off. Throughout the period, there was always fear that the Gerlach turntable would fall in. Inadequate housing in various areas required the living in tents. On December 16, 1932, N.A. Richards, in Keddie, wrote to C.A. Combs: "There is much suffering among our employees and their families during the present cold spell-and the Winter is barely started." Some section crews lived in structures that had not been wind proofed, and it was suggested they could lay up ties alongside the cars to close in the space under them.

In 1926, Arthur Curtiss James added the WP to his already extensive holdings in various other railroads. James was elected to the Board of Directors on July 6, 1926, and became Chairman of the Board on November 13. Harry M. Adams was his president, and Adams served as the fifth president from March 30, 1927 to December 31, 1931. James is famous for his construction of the Northern California Extension, but what has not been generally realized is that he immeasurably prolonged the life of the carrier. Beginning in 1927, a series of yearly improvement programs were instituted to upgrade the system, and for the first time there were funds available for projects previously available only on a smaller scale.

Embankments were widened and restored to their original height, cuts were widened, and bridges raised. Additional ties for standard spacing were installed. The number of ties was increased from 3000 to 3200 ties per mile, and the new standard for ballasting called for increasing the depth by at least eight inches. On the Western Division, most of the crushed rock came from Kerlinger and Oroville, with gravel out of Flanigan pit. Day after day, week after week, the ballast trains rolled with 30 to 40 cars to a train, 25 yards to a car. Culverts were extended and back-filled, and concrete headwalls constructed on the culvert extensions. New quarters were built for the men. Cattle guards, and wing fences torn down account bank widening, were replaced and white washed. Rail-rests and handcar set-outs were constructed. The new 85# rail was laid by gangs of 110 men who averaged three rails a minute, or more than 400 rails per day. The new six-inch spikes were driven by air. New heat-treated angle bars replaced the old untreated bars, and a New Style 8"x9" canted tie plate, with compression bottom, replaced Old Style plates with flat top and ribbed bottom. Eight to twenty rail anchors were added to the panel. Rail and flange-wear had been considerable, and in 1928, four automatic flange lubricators were installed in the Canyon. By the end of 1929, 38 steel bridges had been built, and 27 reinforced concrete, or concrete encased. From the very beginning, there had been siding extensions, but in this period, there was extensive expansion to handle trains of 74 cars or more. The Canyon was always something of a dilemma, and in 1931, the sidings ranged from 48 cars at Merlin, Virgilia, and Twain, to 90 cars at Pulga and Belden.

Speeds gradually increased. In 1920, the maximum speed on the Western Division was 50 MPH for passenger trains, and 40 for

freight. In 1930, on the First and Second subdivisions, freight train speed did not change, but passenger train speed went up to 60 MPH. On the Third Subdivision, maximum speed for freight trains was 25 MPH. Passenger trains had restrictions of 40 MPH between Portola and Two Rivers, 35 MPH between Two Rivers and Keddie, 30 MPH between Keddie and Intake, and 35 MPH between Intake and Oroville. The Fourth Subdivision restrictions called for 35 MPH for freight trains and 50 MPH for passenger. It was a good ride, and the big gangs on the sections surfaced and lined the track so as to make this possible. Freight symbols tended to be loaded down with everything the power would lug, and helpers were present when there was a monetary advantage. Division timetables give no indication of freight activity since most trains ran as extras. First Class passenger trains were not swanky, but they had Class. The silk trains, with seven to nine baggage cars and a coach, were handled by one or two 71 or 86 Class ten-wheelers, although, in the Canyon, the men usually saw them powered by 1 or 2 1 Class consolidations. Speed restrictions were frequently overlooked, and First Class passenger trains took the siding for these symbols. Jack Bellows remembered them as "Here she comes: There she goes!"

On the sections, nothing was greatly different. John Howard commented that when he hired out, section foremen were on your tail if you stirred up the ballast more than a couple inches beneath the ties, when you were changing them out. In changing out ties, one dug out the dirt with a pick and shovel, and tamped by means of a man standing and pumping it up and down. The ties wore on the bottom comers, on the ballast, and they tended to sink and not to keep up the track. Many ties showed marked decay under the tie plates. One man, if he worked hard, could change out maybe one tie per hour, or eight ties a day. Modernization had not arrived at the sections.

In the Improvement Program of 1929, the standard final ballast raise was composed of 64 men, as compared with 102 men previously required. Two air compressors were used with 3200 feet of pipeline each, and 24 air tamping devices. Average output this year, of the final raise gang, was 2,240 feet of track each day. Track laying, east of Oakland for 82 miles, averaged 4,161 feet daily. The work was highly organized, and the gangs worked with the precision of a watch. All work was highly mechanized, with an average force of 135 men. With rail not yet changed out, battered joints were welded and built up. This type of electric welding had been taking place on the system for five years, and any rail battered 1/32 inches was welded. Some of the gangs were very large, and 270 men ballast gangs using gravel, ballasted 1,900 feet a day, and 234 men gangs, ballasting with crushed rock, completed 1,400 feet per day.

The WP had always been alive with activity, but in these final years of the 1920's, there was a confidence, and a renewed faith, that someday the system would be infinitely upgraded with a marked upsurge in • revenue traffic. Not that one could not enjoy WP's passenger trains. The roadmasters, who were actually twenty-four hour men, walked the ties and rode the trains, and these sometimes questioned the section foremen as to why they had not cleaned up their act in their sections. General Manager E.W. Mason frequently rode the trains, and there are telegrams to the superintendents asking them why he had to be the one to point out a rough spot in their territory. From the very beginning, there had been a plethora of un-announced proficiency tests. It was intended that safety would always be a priority. But the work was dangerous, and there were grisly deaths, not only among the engine and train crews, but among the men of the maintenance-of-way. Jack Bellows, as if he believed it, often commented that "the Lord protects the maintenance-of-way people, and the ignorant." But some men never came home, and a 1930 safety slogan reminded one that "NO ONE CHEERS WHEN YOU COME HOME HURT." In the same year, Superintendent T.E. Coyle wrote: "Safety First on the Western Pacific is here to stay and nothing short of a perfect score will satisfy the Management." As in all periods of the road, when the line shut down, there was a heaviness over the land. The men gathered together in little groups, and the stillness could be almost deafening.

The Management was highly regarded, if not feared. General Manager Col. E.W. Mason was the kind of man that exuded confidence to those around him. He was greatly revered by the men, and while he could be very tough, his correspondence indicates he was imbued with an immense quality of sympathy. He

was civilized, but expected action. He knew how to get things done. He knew and trusted his people, and they sensed this. He appears to have been on top of everything all the time. When the wives had problems, they contacted Ed Mason. He seemed to know everything. Section foremen have commented that it was not unusual, in some far out-of-the-way place, for the crew to see a man immaculately dressed in dark hat and suit, walking down the track towards them. On such occasions, this gentleman inquired of the work and its problems, and individually spoke to the men of their concerns. There was a bench alongside the Stockton roundhouse, and employees have commented how a well-dressed gentleman joined them and inquired of their work. This man was Ed Mason.

When one peruses the old timetables, one notices the names of superintendents long gone. The correspondence of J.W. Mulhern, and J.S. Spelman, show them to have been decent individuals with considerable empathy. J.P. Quigley, a true gentleman, was graciously humane with a recognition of human fallibility and difference. He knew how to cut threw red tape, and to get things done when others didn't. In discipline cases, he functioned without rancor. In 1911, and speaking of one employee, Quigley wrote to Superintendent R.M. Oglivie of the Eastern Division: "If you feel that he is a good, competent, careful man, and is not liable to give any more trouble, I think it would be better to retain him in the service, as I think the longer a man is in the service the more valuable he is." In 1919, he wrote to J.S. Spelman that "Some of the best men have made serious mistakes and have profited by them."

The position of superintendent must have been a lonely stance at best. Tim Coyle had a reputation for being very tough, but he worked closely with the men under him, and it appears that he was an ultimately decent gentleman when the employee was trying to do a good job, and didn't attempt to acquire something for nothing. He was a sophisticated chap, and he knew exactly what he was doing, and exactly what to say, and how to say it. There are numerous examples of his sense of humor. To one fireman he wrote: "It is not necessary to sand the engine all the way down the canyon." He had an open mind and a willingness to change a decision when he believed it would be for the good of the individual, and for the good of the service. His patience, however, could wear thin, and an example is a letter written to a fireman in 1931: "I must take this occasion to state to you most emphatically that I am becoming very tired of having your personal affairs brought to my attention." On October 24, 1930, after having found rough spots while riding a passenger consist, he wrote seven individuals, including five roadmasters: "If I can discover these conditions when I am on the line, and I always do, there is no reason why they could not be discovered by the roadmasters." On a number of occasions, and without the men ever knowing, he took their side because they worked for the company, and he believed they could be redeemed.

Able and loyal employees, who made mistakes, were sometimes protected to every extent that seemed rational. On August 7, 1915, Order No. 268, placed at Keddie, was overlooked by the operator. On August 10, Chief Dispatcher E.T. Gallagher, a true gentleman of the highest caliber, wrote F. Saunders that he "did not say anything to the operator as in 2 or 3 other cases, operators have become so excited they were no good the balance of the trick." John J. Duggan, who was considered to be almost irascible, once told this writer that when he was Chief Dispatcher, an operator had allowed two trains, one of them a passenger train, to meet within a few feet of each other on Antelope hill. Duggan called the man into his office, and demanded to know the justification. The operator said that when he saw his error, he didn't know what to do, so "I left it all in the hands of God." Duggan leaned forward over his desk, to a few inches from the operators face, pounded on the desk, and shouted: "G... D...it! I don't want God dispatching the trains! I want you to dispatch them." The dispatcher was then dismissed, and that was presumably the end of the story, minus, of course, a record in his file, and perhaps some demerits.

The size of the railroad, and its vicissitudes, created a fierce loyalty and pride among employees. Constant efforts to remain solvent, and to keep the road open, must have been an inestimable factor in developing a sense of belonging to one big family, and of having something worthwhile striving for. Over the years, and during serious emergencies, there had been

opportunities to learn who could be trusted and depended on in the accomplishment of the task. A sense of comradely grew among these, and there was a deep and abiding faith that someday they would triumph over the struggle. There was always something of a sense of danger, but the task seemed worth the effort. Trackwalkers continued to rove the Canyon in the darkness, and it must have strained one's equanimity to hear the big boulders plunk into the river a few feet away. Among the unsung heroes were the agents. An agent was a kind of counselor-official in his territory, and these left no stone unturned to acquire business, and they made every attempt to protect the company, to drum up business, and to keep the company informed. It is clear that they always had the ear of the superintendents. Many agents were women, and these not only appear to have been more demanding as to what they wanted for quarters, but they were not hesitant to ask for it. Otherwise, there was no difference. It was during these early years that, even among employees, the carrier came to be affectionately known as the "Wobbley," the route of the "Rubber Coupler," the "Wooden Axle," and the "Twin Streaks of Rust."

Chief Engineer Arthur Carlson, who knew the railroad intimately, after 40 years of service to the company in the 1970's, looked out over a thoroughly modern railroad that would have been a joy to those, in the early years, who had possessed the strength and tenacity to perpetuate, and to keep alive, the dream of George Gould. In earlier times, the WP always had a relatively low operating efficiency. Operating revenues were never satisfactory, and the expenses were so high that operating income was always low. Operating Ratio for 1929 was 81.63. In the latter years of the period, 1921 and 1923 were tolerable, but it was not a good omen that net income dropped in 1926 and 1927, with a slight upswing in 1928, followed by another downturn in 1929. The Great Depression began in October and November of 1929, and the carrier showed a net loss of $304,006.40 for 1930. There was a payroll to meet, and the close of 1929, showed an average number of employees of 388 daily and 4788 hourly.

The Company had never ceased to fondly remember the place of Arthur Curtiss James in the maturation of the railroad. James had resigned on December 31, 1939, due to the dictates of his health. He had been responsible for improvement and modernization, and this was never forgotten by the men and women of the Western Pacific. James died on June 4, 1941, and on Saturday, June 7, 1941, services were held in New York. Back on the Western Pacific, at 07:00, all train operations, both passenger and freight, ceased for one minute, which was the same time the services began in New York.

Virgil Staff
28 September 2001
FRRS Arthur Walter Keddie Library - Virgil Staff Collection

ACKNOWLEDGMENTS

This paper was made possible by so many employees of the Western Pacific, that I could not possibly mention them all. To these we all owe a debt of gratitude. It seems nonetheless essential to mention those who, in so many respects were vital to the study. In Sacramento, Hyrum O'Rullian assured that I was permanently provided with a desk during the period of 1965 into 1983. This made for easy access to hundreds of Engineering Department AFEs in the mechanical collection. Arthur Carlson, in San Francisco, opened the Engineering Department to my use, with ready access to AFEs, maps, and various individuals. John Morgan, in the Auditing Department, always found me a desk, with ready access to California Railroad Commission reports, Form One's, and annual reports. Robert Redus, in the General Manager' s office, always had time for my questions. In Sacramento, there were numerous conversations with John Howard, and Myron K. Anderson, in the Maintenance-of-Way department. Glen Metzdorf, provided access to over 100 cubic feet of superintendents correspondence. In various conversations, of inestimable value, were Dwight Bellows, Frank Hyatt, Harold Dirks, Bud Burmester, William Houdyshell, Gordon Switzer, Augustus Kramm, Chet Barry, Jim Lynch, John Luzar, Ray Hobbs, Jack Jones, Ed Hillier, John J. Duggan, G.S. Allen, George Naylor, Chuck K. Faye, Doug Brown, Grant Evans, Curtis Risk, Robert Turner, John J. McNally, Henry Stapp, John Taylor, George Rutherford, Frank and Robert Lemon, Herb Berg, Glen Morton, Charley Ellis, Tom Hunter, Carl Rowe, Norman W. Menzies, and Robert Enger.

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Note: Several secondary sources place the 1916 public auction sale as taking place on June 18. But my own interpretation of the Form 1, in addition to a manuscript in the Auditing department, give the date as June 28, 1916. I have accepted the June 28 date, but farther work should corroborate one or the other.