Utah Railroads

ALTHOUGH the Mormons sought isolation from their persecutors, and more than found it in the arid regions of the Great Basin, they were not long in realizing the need for a better type of transportation than was provided by the slow-moving oxen. Thus it was with joy that they learned of a proposed transcontinental railroad that would link the East to the West. Indeed, according to Tullidge, "It is a singular fact, yet one well substantiated in the history of the West, that the pioneers of Utah were the first projectors and first proposers to the American nation of a transcontinental railroad." It has been said that on the initial journey to Utah, Brigham Young would often point out the route where one day such a railroad would be built. Further proof of their great desire for better transportation and communication facilities was voiced at the first session of the territorial legislature of 1851-52 when "..... memorials to Congress were adopted, praying for the construction of a national central railroad and also a telegraph line from the Missouri River via Salt Lake City to the Pacific." The great dream became a reality on May 10, 1869, when the Golden Spike joined the Central Pacific and the Union Pacific at Promontory.

It was only a matter of a short time before a web of small railroads began spreading throughout the territory. As with all the other projects that had been undertaken by the Latter-day Saints in their conquering of the frontier, the building of railroads was accomplished in much the same manner. The people of each settlement became responsible for the line that would run through their area. The men

must build the grades, haul the timber for the ties and lay the rails. Once again they were called upon to abandon other pressing personal work to build for the benefit of the whole. It seems that such dedication should have been rewarded by more financial gain for the builders, but it became a sad reality that almost as soon as the branch railroads were built by the sweat and labor of the Saints, they were absorbed by the more powerful roads.

THE UTAH CENTRAL RAILROAD

In June of 1868, President Young realized that the terminus of the first railroad to span the continent would not be in Salt Lake City. The following statement gives his reaction:

> "If the company which first arrives should deem it to their advantage to leave us out in the cold, we will not be so far off but we can have a branch line for the advantage of this city."

President Young made good his prediction by organizing the Utah Central Railroad Company March 8, 1869, with capital stock $1,500,000 or 15,000 shares valued at $100 each. The first stockholders were Brigham Young, Joseph A. Young, George Q. Cannon, Daniel H. Wells, Christopher Layton, Briant Stringham, David P. Kimball, Isaac Groo, David O. Calder, George A. Smith, John Sharp, Brigham Young, Jr., John W. Young, William Jennings, Feramorz Little and James T. Little. These stockholders were all Mormons, and all came from Salt Lake City with the exception of Christopher Layton of Kaysville, Davis County.

Brigham Young was president, his son Joseph, general superintendent, D. H. Wells, treasurer and Jesse W. Fox, chief engineer.

When the decision was reached that the northern route had been chosen and the railroad would be laid by way of Ogden, Corinne, Promontory, then north of the Great Salt Lake on to Nevada, the authorities of Salt Lake City were much disturbed, fearing that the gentile city of Corinne would be chosen as the junction. Immediately the Church Authorities made arrangements to purchase about 135 acres of land in West Ogden, which was offered free of charge for a station, to the two railroad companies, the Union Pacific and Central Pacific, if they would make Ogden their junction. Promontory also proved to be deficient in natural resources which would justify the companies in building their railroad shops there and in making that point the permanent junction of the two great companies. Ogden, on the other hand, was favorably located and had many other advantages. In November 1869, the Central Pacific purchased forty-seven miles of line from the Union Pacific and leased a remaining five miles, thereby making Ogden the terminal for both roads. They built the station on the free land donated by the Church, and from that time forward Ogden was known as the "Junction City."

The track laying was commenced at Ogden September 22, 1869, and the construction of 36.34 miles of line to connect Salt Lake City

with the Weber Junction was completed January 10, 1870, creating radical local changes, which affected the mining and commercial enterprises of the territory, as well as the every day life of the citizens. The following letter published in the *Millennial Star,* was written May 22, 1869, to Albert Carrington by Brigham Young:

> On the 17th inst., the First Presidency broke ground at Ogden for the railroad between Ogden and Salt Lake City. There was no great display, no speech making; though somewhat unexpectedly a large concourse of people assembled to witness the ceremony. I merely cut the sod using the spade for the occasion, which I considered more appropriate than a pick, as being the right tool in the right place. The sod, I am informed, was afterwards borne away in fragments as a memento of the event.

On May 15, 1869, Jesse W. Fox, chief engineer of the Utah Central Railroad, took H. S. Young and Jesse W. Fox, Jr., to the west side of Ogden City and there directed the boys to drive some stakes along a line survey westerly toward the Weber River. An engineering party had been organized and later added to, which embraced the following persons: Jesse W. Fox, Sr., chief engineer, John Fewson Smith, C. L. Ericson, James H. Martineau, Abraham F. Doremus, Charles W. Hardy, Joseph W. West, Rodney C. Badger, Hyrum S. Young, Jesse W. Fox, Jr., Oscar F. Hunter, Calvin Richards, Wilford Hinchcliffe, Robert Moyes, camp cook; Brigham Martin, Frank Kimball, James X. Ferguson.

From a *Deseret News* editorial published June 16, 1869, we quote:

> I am indebted to President George A. Smith, who accompanied President Brigham Young, for the following particulars of the locating of the line of the Utah Central Railroad: President, Brigham Young; vice president, Wm. Jennings; directors: Feramorz Little and Christopher Layton; general superintendent, Joseph A. Young, and chief engineer, Jesse W. Fox. The officers of the Utah Central Railroad left Salt Lake City on Thursday morning and at the Hot Springs met, by appointment, the leading citizens of Davis County, numbering at least one hundred men, nearly every public man in the county and many of the farmers being there. The wagons and carriages numbered nearly forty. Leaving the road the party struck the bottom, and after as careful an examination as possible under the circumstances the northwest corner of Brother Daniel Wood's farm, lying about a block east of the meetinghouse at Bountiful, was selected as the point near which the depot for that place should be located. Brother Daniel Wood strongly urged that the lane east of his farm should not be interfered with by the line, he and his neighbors preferring that it should run through his farm, he offering the land for nothing. President Young, before fully deciding upon this point for the site for the depot, called upon

Bishop Stoker and the people of Bountiful to express their feelings. They were unanimously in favor of the place located.

From Bountiful the party proceeded to Centerville, when a point about a quarter of a mile from the town was chosen for the depot in the same manner as at Bountiful, the people's wishes, as well as those of the owners of the land, being consulted.

Farmington was next reached, and after the party had dined, they proceeded to examine the land west of the town. Bishop John W. Hess had looked over three routes, either of which he thought might answer; but as there is only a narrow strip of land between the town and the lake his feelings rather leaned to the western route of the three, as by that the line would run through a barren piece of land. An examination of the route caused the President to conclude that the line could be run there at ten thousand dollars less expense than by either of the other two. Before deciding upon adopting it, however, he called upon the people to learn from them whether they wanted Farmington to come to the railroad or the railroad to come to Farmington. The reply was in favor of the latter proposition, so a route about half a mile west of the meetinghouse was selected. Bishop Hess has since expressed his entire satisfaction with the route, and says he and his people are willing to undertake the grading through his ward.

After examining the route as far as Kaysville, President Young put up at Bishop Layton's for the night. Starting out in the morning, a site for the depot was selected in the vicinity of Brother Barton's brick house — a distance probably of not more than eighty or one hundred rods west of the meetinghouse at Kaysville. From this point the party went to the engineer's camp about two miles from Kaysville, and examined the profile of the route as far as surveyed. There are three corps of engineers already at work, and more are wanted, as men are waiting to take jobs of grading, all that has been surveyed having been let out.

Under the guidance of Chief Engineer Fox, the party proceeded along the line as far as the Weber, giving the route a thorough examination. Grading parties were at work all along the line and several portions were completed. The big cut, leading up from the Weber River on to the bench, is being rapidly pushed through. The engineers were instructed not to have any grade on the line exceed forty feet to the mile, or any curve exceed three degrees to the mile.

From all indications the line will be completed at an early day. The grading is being taken hold of with energy and spirit and the people feel deeply interested in the project. President Young, and the other officers of the Utah Central Railroad have taken the right method to secure their good feelings.

> Probably their course is unexampled in the history of railroad building. But the Utah Central Railroad is not being built by a company solely to make money, or for its own benefits; but for the good of the people and the country, and it is desirable that whatever is necessary to make the scheme a success should be done by the common consent of all concerned. Prosperity attend it, is the wish I here express on every hand.

The work continued during the summer of '69 with labor supervised by the bishops of the towns along the line. Some received their pay in stocks or bonds; some paid their debt to the Perpetual Emigrating Fund and others received only railroad tickets. For those who donated their time, the Church received shares of stock. Late December 1869 the one hundred fifty men who were hired to complete the tracks into Salt Lake finished their work, and the last spike was driven Monday, January 10, 1870, the day appointed for the laying of the last rail of the Utah Central Railroad. The weather was cold, a heavy fog hung over the city of Great Salt Lake, but a multitude assembled, and by two o'clock p.m. there was gathered around the depot block about 15,000 people. As the train with the invited guests from Ogden and other northern settlements came dashing toward the end of the track, shouts arose from the assembled city. A large steel mallet had been made at the Church's public works blacksmith shop. The last spike was forged of Utah iron manufactured by James Lawson. The mallet was elegantly cased, bearing on the top an engraved beehive surrounded by the inscription, "Holiness to the Lord," and underneath the beehive were the letters U.C.R.R.; a

similar insignia consecrated the spike. The sun, which had hidden himself behind the clouds during the whole day, burst forth as in joy to witness the event of the laying of the last rail almost at the very instant. It was like a glad surprise, and the assembled thousands took it as a happy omen. The honor of driving the last spike in the first railroad built by the Mormon people was assigned to President Young. After the performance of the ceremonies, a salute of thirty-one guns, one for each mile of the road, was fired.

Horatio Hancock coupled the first car of the Utah Central Railroad to the engine named "Black Hawk" at Ogden and was conductor of the first construction train. When the last three miles of track were laid, William Jeffs, Sr., was appointed fireman and Albert Gray, brakeman. As soon as the road was completed, Mr. Hancock was made conductor on the passenger train which ran from Ogden to Salt Lake, and Arthur Tippets was named engineer.

Chief engineer of the Western Division of the U.P.R.R., had this to say regarding the Utah Central Railroad:

> I have but one word to say to the working men of Utah, and that I will say briefly; I have been fifteen years engaged in railroad business, but I have never seen a single road made to which capitalists did not contribute their money, or the responsibility of which did not fall upon the Government or the State in which said road was made. But here, nearly forty miles of railroad have been built, every shovelful of dirt of which has been removed by the working men of Utah, and every bar of the iron of the road has been placed in position by their labor. You can publish to the world that the working men of Utah built and own this road. I have said one thing and I want to say one thing more. Do not stop where you are. When you laid the last two rails today, they stuck out a little. That means, Go On!

The following is taken from a speech of Colonel B. O. Carr of the Union Pacific Line:

> The Utah Central Railroad, although only thirty-seven or thirty-eight miles long, is perhaps the only railroad west of the Missouri River that has been built entirely without Government subsidies; it has been built solely with money wrung from soil which, a few years ago, we used to consider a desert, by the strong arms of the men and women who stand before me. And almost everything used in its construction, but especially the last spike, is the product of the country — All I have to say further is that I cannot imagine how any man, whether Mormon, gentile, saint or sinner, can do other than feel happy at the completion of this road. I wish it the utmost success on its journey to the far South.

In 1872 Bishop John Sharp, acting for the Church, negotiated with the Union Pacific to sell 5,000 shares of Utah Central stock

at $50.00 a share held by the Church, but the Church managed the road until 1879 when control of Utah Central fell into the hands of Union Pacific.

Engines — Two new locomotive engines, Nos. 3 and 4 for the Utah Central Railroad arrived at Ogden February 7, 1870. They were built by McQueen and Company, Schenectady, New York, at a cost of $12,000. The building of freight houses, passenger and freight landings, etc., at the Utah Central Railroad depot was pushed ahead rapidly, and in a short time a neat and commodious depot was built, with every convenience necessary for the comfort of the traveling public.

From the diary of James Lawson:

Before January 10, 1870, I made the last spike which connected the two roads. It is constructed of iron polished so brightly as to look almost like silver. It is beautifully engraved on top with the words, "Holiness to the Lord," and beneath this is an almost perfect beehive representing the seal of Utah. I also made the hammer which drove the last spike as well as the Golden Spike. The Utah Central road was opened to traffic on January 10, 1870. It continued under the presidency of Brigham Young, Sen., for a short time and then his son, Superintendent Joseph A. Young, succeeded his father as president of the company; but on February 17, 1871, he resigned the presidency and his original office of general superintendent, when his father resumed the presidency and Feramorz Little was appointed superintendent. John Sharp succeeded Little in 1871, and in 1873 was elected president of the company, as well as continuing in the superintendency of the road.

From the records of Horatio Hancock:

I coupled the first car to the engine named *Blackhawk* at Ogden and was engineer on the construction train day after day as we made progress to Salt Lake. Robert Bult was engineer and William Jeffs was fireman; Albert Gray, brakeman. The last night before the completion of the road we came back to Ogden and stayed up part of the night decorating the engine, *Blackhawk,* with flags and ribbons, preparatory to the celebration January 10th. We coupled on four coaches which made up the train with Union Pacific officers and business men of Ogden on board. I was the conductor. The second train was piloted by Charles Mayard, engineer and John Leavitt, conductor. This train carried the employees who worked on the road. As soon as the road was in running order, I was the conductor on the passenger train running between Salt Lake and Ogden. (End of quote.)

In February 1870 one million dollars worth of first mortgage bonds were issued to pay President Young's debt to his Union Pacific sub-contractors and their workmen. The Utah Central Railroad Company was given as security. A committee was formed to solicit the cooperation of the Saints in buying the bonds, but there was very little response to this appeal. At the general conference held at

Salt Lake City in October 1870, President Young told the people that "it is the mind and will of God that the Elders should take the Utah Central Railroad bonds and own the railroad." Failing to receive the amount he needed, President Young borrowed $125,000 from the president of the U.P. Railroad.

UTAH CENTRAL RAILROAD FREIGHT TRAFFIC,
March 1874

INWARD	TONS	LBS.
Building Material	11	50
Crude Bullion	560	70
Coal	4710	1070
Coke	541	870
Charcoal	435	
Iron Ore	273	720
Lumber	215	295
Livestock	120	
Merchandise	1045	494
Ore	61	1000
Produce	253	700
Railroad Material	95	1720
Sundries		1000
Wood	21	1000
Wagons	55	700
	8395	9689

OUTWARD	TONS	LBS.
Crude Bullion	800	478
Lead	160	
Merchandise	102	594
Ore	595	1820
Produce	102	20
Sundries	11	287
Wool and Hides	39	1546
TOTAL OUTWARD	1809	4745
TOTAL INWARD	8395	9689
GRAND TOTAL	10204	14434

THE UTAH SOUTHERN RAILROAD COMPANY

The Utah Southern Railroad Company was the second railroad enterprise in which the citizens engaged. Of it Tullidge said:

> It is worthy of particular remark that the community cooperated with all their faith and means to build these home railroads, under the counsel and management of their leading men.

On January 7, 1871, the following men were named stockholders of the newly organized company: Joseph A. Young, William Jennings, John Sharp, John Sharp Jr., Feramorz Little, James T. Little, LeGrand Young, L. S. Hills, S. J. Jonassen, Thomas W. Jennings, James Sharp, George Swan, Jesse W. Fox, D. H. Wells, C. Layton. William Jennings was elected president of the company, John Sharp, vice-president and Feramorz Little, superintendent. Jennings resigned and was succeeded by Brigham Young as president. Later, Jennings again became president and manager, and the road continued under this management until it was re-incorporated, its purpose to build a road through settlements south of Salt Lake City.

The capital stock consisted of 1,500 shares of 100 par-value stock, making the total capitalization $1,500,000. Joseph A. Young, son of President Young took 301 of the 500 initially subscribed shares. Most of the other shares were taken by the men who held stock in the Utah Central. These bonds issued under the signature of President

Young were to be sold as the road progressed, not to exceed $20,000 for each mile.

On the first day of May 1871, ground was broken for the Utah Southern. The first spike was driven June 5th, and work was pushed forward from point to point, passing through some of the wealthiest and most productive tracts of land in the territory. By September 1871, thirteen miles of road were completed to Sandy. During the winter of 1871-72, plans were made to continue the road to Lehi, thirty miles from Salt Lake City.

The completion of the track of the Utah Southern Railroad into Lehi, and the arrival of the first train on September 23, 1872, with cars traveling eighteen to twenty miles an hour, marked an important event. Boarding houses, hotels, saloons and small shops made a rapid growth on State Street. For over a year the terminus of the road was here and this made the town the distribution center for goods shipped to the southern part of the state, causing many Lehi men to obtain profitable employment. It was a delightful experience to the children, who had never ridden on a train, to be taken for a ride on the coaches. The older citizens had seen the railroad with its engine before they came west. In fact, it is claimed the first railroad conductor in the world settled in American Fork. On his tombstone in the American Fork Cemetery is written: "Edward Robinson, the first railroad conductor in the world." The engine, "The Rocket," made its initial run from Liverpool to Manchester, England, in the year 1830, on which Edward was the conductor.

In 1872 the engine of the Utah Southern was brought to American Fork on a moveable track. Many of the townspeople witnessed its

coming. They went about a mile down State Street, saw them lay down the moveable narrow gauge track or skids, run the engine along, then pick up the track and place it again in front of the engine and continue into town. To add excitement to the occasion the engineer tooted long and loud and sent out great sprays of steam. Some were frightened and had to be taken home. In the fall the road was open to traffic through American Fork. The people rejoiced. A right of way had been granted by the city council along some of the principal streets of the city, and an ordinance passed limiting the speed of trains through the city to eight miles per hour. The rails ushered in a great day of freight and transportation, bringing about new enterprise and industry.

"The first track in American Fork was built along First North between First East and Grant Avenue where a temporary building was erected on the corner. A spur of track ran into sheds for unloading freight and loading ore and cattle. An engine house stood north of this building in the rear. The depot was built on the south side across the tracks. It was a tall one room building facing south, with a long platform on the south and east sides. Across the street north from the depot and to the east and north was Keppernick Corral and directly south, the railroad cattle corral with the American Fork River on the east side." *History of American Fork*

This railroad, running through thirteen settlements, was well managed. At the time of its building, there was not much money in the territory and only by the ready help which came from the people in response to the call made by President Brigham Young, under whose direction the road was pushed forward, was it possible to complete the line. A series of meetings were held in Utah County, which President Young attended and encouraged the people to buy the bonds and stock and to give of their time and money. People of Utah County responded, saying that as soon as their crops were harvested they would undertake the work. Following was the agreement:

> As payment for the stock the people of the county agree to do the grading, supply the ties, lay the rails, and in fact, to build the road, station houses, etc., from its present terminus to Provo, and also subsequently to continue the work beyond the latter point to Payson. The shares will be distributed among the various settlements of the county, each taking as many or as few shares as it chooses.

A. O. Smoot, the presiding bishop in Utah County, was made general chairman and given the responsibility of dividing 3,600 shares of $100.00 a share among the towns through which the railroad would run in Utah County. All bishops were given responsibilities; such as William Bringhurst, who was appointed to handle some of the construction. By December 1873 the track was laid to Provo, where a celebration was held.

During 1874 the Union Pacific, with whom President Young had made an agreement to buy some of the bonds and stock of the Utah Southern, financed the construction of the road from Provo to York, Juab County, twenty-seven miles. People living along the line aided in the building and some contracts were taken by church organizations. It reached York, April 1, 1875; thus greatly furthering the development of the rich Tintic mines.

From *History of Juab County,* we quote:

Until the year 1877 all the transporting and exporting of commodities from Nephi was done by freighting with oxen, and then teams of horses, and heavy wagons, going as far north as Salt Lake City, and south to Frisco, Leeds, Pioche and other points. The Utah Southern Railroad reached York, located about fifteen miles north of Nephi and just south of Santaquin Hill, April 1, 1875, which remained the terminus of the railroad for two years. During this time hundreds of loads of produce were hauled to and from Nephi. From one of the bills of lading of that date we copy the following:

> Utah Forwarding Co., George Y. Wallace, Supt. Deseret Bank Building. Received of Peter Sutton, fifty cents (50 cents.) in payment of storage on one baby carriage for E. Southworth, Nephi. Dated Terminus U.S. Rail Road, November 7, 1878. H. B. Prout, Agent.

The trains arrived daily at York, carrying freight, passengers and mail. Henry Goldsbrough, Sr., met the train daily with his "hack" to take to and carry from the train the mail and also to bring passengers to Nephi. At times there were more passengers than his vehicle could carry. York was in the north end of Juab Valley which had been unsettled, but after it became the terminus a number of homes were built, some railroad employees living there, as well as others. While that point was the terminal of the railroad, it was a lively, western frontier with something always happening.

An interesting account of the first steam engine seen in Nephi is taken from the journal of Bishop Thomas H. G. Parkes as follows:

> On Saturday, May 3rd, 1879, the whistle of the first steam engine was heard in Nephi at 6:30 a.m. and on Monday, May 21st, the first train was run up to the depot. School children, men and women got on and rode down to Brother Charles Sperry's and back. The band was there, also.

Everyone was full of enthusiasm to welcome the train. The people were thrilled with the thought that Nephi could boast of a train coming to their town daily and anticipated the joy of riding in a railway car. (End of quote.)

In 1874 a new corporation known as the *Utah Southern Extension Railroad Company,* capitalized at $4,000,000, was formed for the purpose of building the road further into Southern Utah. Con-

struction was not undertaken until 1878-79 when the road was brought thirty miles to Juab, fourteen miles south of Nephi. Soon after it reached Juab, a new *Utah Southern Extension Railroad Company* was organized by Jay Gould and S. H. H. Clark of the Union Pacific, and officers of the Horn Silver Mine at Frisco. The purpose was to provide railroad connections with the mining projects in Beaver County. This line was completed in early 1880.

In 1881 the *Utah Central, Utah Southern, Utah Southern Extension* and the second *Utah Southern Extension* joined together to organize a new company which was called the Utah Central Railroad System. Now the entire line covered a distance of 280 miles south from Ogden. Railroading in Southern Utah by both the Mormon people and outside interests proved a boon to the mining industry and to the agriculturists of the regions through which the railroad ran.

Provo Times, April 18th. The superintendent of the Utah Southern Railroad, having an eye to business, and for the accommodation of the people living in counties south of Salt Lake City, proposes, as we understand, to run two trains a day during the meeting of our coming conference. In addition to the usual train now leaving Provo daily at 12:30 p.m., we understand that another will leave Provo every morning about nine o'clock and return each afternoon, leaving Salt Lake City about four o'clock.

WASATCH AND JORDAN VALLEY RAILROAD

When the Utah Southern reached Sandy in September of 1871 and the Sandy station was finished, the granite blocks quarried in Little Cottonwood Canyon for the temple that had previously been carried by ox-drawn carts were now transported by rail to the depot in Salt Lake City from which a spur had been built to the temple grounds. It was then that the Church officials and others planned the construction of a narrow gauge branch to run east from Sandy to complete connections with the Church granite quarry and the mining district at Alta. The *Wasatch and Jordan Valley Railroad* was organized and the line completed to the quarry April 4, 1873.

The officers of the company were William Jennings, superintendent; A. B. Banzon, assistant superintendent; B. W. Jennings, general freight agent; T. W. Jennings, secretary. The company had three engines, fifty flat, one baggage and two passenger cars.

From the *Deseret News* of November 18, 1872, we quote:

Work has at last begun in good earnest on a narrow gauge railroad to connect the mining district of Little Cottonwood with the Utah Southern. The practicability of such a road has elicited considerable discussion and has been doubted by many; but the report of the engineers who have been employed by the new corporation, sets all doubts at rest. From the initial point at Sandy Station, to the mouth of the kanyon, the grade is 146 feet to the mile and

very gradual. Up the kanyon to Alta it varies from 150 to 233 feet to the mile, which is to be considerably lessened by back switching. Several miles will thus be added to the length of the line, which will be abundantly compensated by the lessened grade.

The roadbed up the kanyon will be generally elevated above the wagonroad, and will be constructed chiefly on the north side of the defile to secure the benefit of sunshine in keeping the track clear of snow in winter. Sheds will also be employed wherever necessary. By these means it is expected to keep the road open for traffic through the severest winters.

The locomotives ordered are of peculiar construction, having great steam capacity with less than the usual weight of iron. In these machines mechanical adhesion of traction takes the place of adhesion induced by the weight of the locomotive. This is effected by the application of a very simple and ingenious device, the invention of Col. James S. French, formerly President of the Washington and Alexandria Railroad, running over the Long Bridge from the District of Columbia to the Virginia side of the Potomac. A third or supplementary pair of driving wheels is swung in the rear of the ordinary drivers, and connected with the latter so as to revolve at the same rate of speed. These additional drivers have a grooved thread, and are hung in such a manner as to be lifted from contact with the track, at the will of the engineer. In climbing grades or starting trains the grooves sit astride the rail and compel advance motion with each revolution of the drivers, instead of allowing the wheels to "slip" as is ordinarily the case with heavy trains and steep grades. Numerous vexatious delays are thus avoided and greater rapidity of transit is secured. The invention has been tested on the Baltimore and Ohio Railroad with very satisfactory results. It is evidently destined to solve the problem of railway construction in many localities heretofore deemed inaccessible to this kind of traffic.

The title assumed by the corporation having this enterprise in charge is "The Wasatch and Jordan Valley Railroad Company." Its officers are among our most enterprising business men, and their names afford an ample guarantee that the work commenced yesterday will go rapidly forward to completion. The enterprise commences with 3½ miles of excellent roadbed already made, the same having been secured from the Utah Southern, which was chartered to run a branch to the mouth of Little Cottonwood, but which prefers to push its main trunk southward and leave the feeders to the enterprise of others. This three-and-a-half mile start renders it certain that the road will be completed and running to the mouth of the kanyon before winter fairly sets in. Iron and rolling stock have been ordered, and unless the season closes in with severity, work will be prosecuted unceasingly to its completion. The capital needed for the purpose is secured, and will be expended with discrimination and economy. The interesting ceremony of "breaking ground" took place between Sandy and the mouth of the kanyon yesterday afternoon, and was

participated in by all the officers of the company, several of the stockholders, and invited guests. Instead of formally throwing a single shovelful of earth, as is customary, a good rod of excellent road bed was made by the Directors, in person. Hon. William Jennings, President of the company, threw off his coat and went at it with such energy as to render it apparent that the grading would surely be done, even though he had to do it himself. Hon. Delegate Hooper, Vice-President, did his full share of the work, as also did the Secretary, Hon. Frank Fuller, and the Treasurer, James T. Little, Esq. as well as two other members of the Board of Directors, Messrs. H. S. Eldredge and H. B. Clawson, Messrs. M. A. Baldwin, of Troy, N. Y., and I. R. Thompson, of Brooklyn, N. Y., both stockholders, fairly split their kid gloves in their determination to be reckoned among the able-bodied diggers. While the engineers of the line, Messrs. Jesse W. Fox and Charles W. Hardy, directed operations in such a manner as to save the region from utter ruin for all future purposes.

The whole affair terminated with speeches, cheers and mutual congratulations on the successful inauguration of a much needed enterprise, the speedy completion of which no reasonable doubt can be entertained, and the necessity for which is universally admitted. (End of quote)

Between Wasatch and Alta the grade was too steep for even the most powerful locomotives, being at one place nearly six hundred feet to the mile; consequently, the empty cars had to be drawn up by horses. The loaded cars were allowed to coast down over a line completely covered, above Granite, by snowsheds — a trip agreed to have been quite a thrilling experience. The traffic consisted almost entirely of ores from the Alta mines bound for the sampling works at Sandy.

The Wasatch and Jordan Valley Railroad was acquired by the Rio Grande Western on Dec. 31, 1881. Because of the excessive grades it was never too profitable to operate; and with the failure of some of the mines in the 1880s that section between Granite and Alta was abandoned. The lower part was later repaired and for a few years was used in hauling granite from the quarries at the mouth of the canyon.

BINGHAM CANYON AND CAMP FLOYD RAILROAD

The spur going west from Sandy to Bingham, built by the Bingham Canyon and Camp Floyd Railroad Company in 1873, reached the important mining camps in the Oquirrh Mountains. The following is taken from the *Gazetteer of Utah and Salt Lake City,* 1874:

Another narrow gauge road, which also connects with the Utah Southern, running across the west side of Salt Lake Valley as the Wasatch and Jordan Valley Railroad runs across the east side, and meets the requirements of West Mountain Mining District, of which Bingham is the mining town. The company to build this road was incorporated September 10, 1872, and sixteen miles were graded

and tied ready for the iron by June 1st, 1873. Then some eastern capitalists associated with parties in Salt Lake City, bought out the stock, rights and franchise of the road. Light iron for narrow gauge roads at the time could not be obtained in the United States, and they were compelled to wait until their iron was manufactured. The first installment of the iron was received September 1st, 1873, and, notwithstanding further delays arising from the same cause, the road was completed to Bingham, its present terminus, and freight and passenger trains were running through by December 1st. The distance is about twenty-two miles. A third rail has been laid from the West Jordan smelting furnaces to Sandy, making it so far a broad gauge, so that coke, coal and other supplies can be sent to them and bullion taken from them, east or west, without breaking bulk. The Bingham Canyon and Camp Floyd Railroad Company has a hundred freight and ore cars, four passenger and one baggage and express car with the requisite railroad buildings for such a line. Present officers: C. W. Scoffield, president; B. W. Morgan, vice-president; George Goss, general superintendent; William B. Welles, secretary and treasurer.

AMERICAN FORK RAILROAD

Mindful of the admonition of Brigham Young to stay with their farms and not seek riches in the mines, residents of American Fork had lived there twenty years before they knew of the rich ore in the canyon. Mineral Flat Mining District was organized July 21, 1870. The *Deseret News* carried this item, April 6, 1871:

> The fact is unquestionably demonstrated that rich mines are in abundance in American Fork Canyon. A great amount of ore is already on the dump. Sawmills are being built to supply lumber and shingles. Houtz and Farnsworth are located at the mouth of the canyon with ample supplies for man and beast.

The following was taken from *Gazetteer of Utah and Salt Lake City,* 1874:

> This is a narrow gauge line, connecting with the Utah Southern and running up the American Fork Canyon, designed to meet the necessities of the mines in that district, mainly of the Miller Mine and other properties belonging to the same company, the Miller Mining Co. and the A. F. R. R. Co. being substantially the same. The railroad company was organized April 3, 1872, capital stock $300,000, with Lloyd Aspinwall, of New York, President; Lloyd Aspinwall, G. G. Howland, H. W. Gray and A. C. Kingsland, Jr., of New York, and R. N. Baskin, of Salt Lake, Directors. Work was commenced in May 1872, and the road was completed from American Fork City, on the U.S.R.R., to Deer Creek, up the canyon, a distance of twelve miles, in November of the same year. It was originally intended to continue the road up to the Sultana Smelting Works, a distance of four miles further, and that portion of the road was graded

and made ready for the ties; but it was subsequently considered that the industries of the canyon would not, up till the present, warrant the expenditure which would be necessary to complete it. The scenery of the canyon up which this short road runs is noted for its sublimity and wild grandeur. The affairs of the company, as well as of the Miller Mining Co., for the past year were under the immediate direction of A. Lawrence Hopkins, Vice-President of the latter Company, with John J. McNamee as Cashier.

Ore was hauled by team from the mines to Deer Creek, a distance of seven miles, from there down the canyon in the cars under their own power with a brakeman to guide them. The return trip was a hard pull for the engines of that day.

Not long afterwards, the mines in the area failed to a great degree, then excursions were operated into the canyon which is noted for its beautiful scenery. Later it was made a tributary to the Denver and Rio Grande Railroad.

THE UTAH NORTHERN

Soon after the Utah Central opened for traffic, people living in Northern Utah began pleading for a railroad. William B. Preston, one of the leading citizens of Logan, proposed that the people ask the Church Authorities in Salt Lake City to back the building of a railroad from Ogden to Soda Springs, Idaho.

John W. Young, son of Brigham Young, assumed the leadership, knowing that the settlers were earnest in their desire. It was to be a people's road, but Young realized the cost of rails, rolling stock, etc. would be greater than the citizens could afford. Hence, he traveled to New York where he secured the promise from Benjamin and Joseph Richardson to the effect they would furnish the needed materials for a railroad that would run from Ogden to Soda Springs, Idaho, provided the people along the line would do the grading, lay the ties and track and perform other work, such as erecting bridges, etc. In August of 1871 Young called a meeting in Logan where he presented the plans to a group of Church leaders in Cache Valley. Following this meeting, telegrams were exchanged between Bishop Preston and Brigham Young.

Logan, August 15, 1871

President B. Young, Salt Lake City:

Will it be wisdom for us in Cache County to grade and tie a railroad from Ogden to Soda Springs, with a view to Eastern capitalists ironing and stocking it; thereby giving them control of the road? The people feel considerably spirited in taking stock to grade and tie, expecting to have a prominent voice in the control of it; but to let foreign capitalists iron and stock it will, if my judgment is correct, give them control.

W. B. Preston

Salt Lake City, August 15, 1871

Bishop Preston, Logan:

The foreign capitalists in this enterprise do not seek the control; this is all understood. What they want, and what we want, is to push this road with all possible speed, if you decide to have one, so that it shall run through and benefit your settlements and reach Soda Springs as soon as possible.

Brigham Young

Upon receiving President Young's answer, the Utah Northern Railroad Company was organized August 22, 1871, the men along the line agreeing to take stock for the grading and tieing of the road. The officers were John W. Young, president and superintendent; William B. Preston, vice-president and assistant superintendent; Moses Thatcher, secretary, and the following were appointed directors: Joseph Richards and LeGrand Lockwood, New York City; William B. Preston, Hezekiah Thatcher, Franklin D. Richards, Lorenzo Snow, Samuel Smith, William Maughan, O. N. Liljenquist, William Hyde, Samuel Roskelley, Marriner W. Merrill and Lorenzo H. Hatch. Plans called for a narrow gauge road with a superintendent in each of the larger areas. The local bishops were held responsible for recruiting the labor.

On August 26th, 1871, ground was broken at Brigham City where a great celebration was held; the ward choir and the town band took part, and according to the history of Brigham City a cannon was fired to announce the new venture.

The first survey, under the direction of James A. Martineau, Utah pioneer of 1850, was made between Brigham City and Logan. The priesthood members of Hyrum, Cache County, cut the trees in Blacksmith Fork, made them into ties, then hauled them to the roadbed, using their own teams and equipment, plows and scrapers. The men living along the right of way were the real builders.

J. Nicholson, writing to the *News* under date of November 29th, 1871, noted the following:

The construction of the Utah Northern Railroad is going on vigorously. For energy and enterprise, the people of Cache Valley are probably not excelled by any other body of people of the same numbers on this broad continent. They have given many evidences in favor of this among which is the great canyon road between Cache and Bear Lake Valleys, and now they are at work determinedly and energetically making a railroad over and through the mountains and valleys northward.

The portion of the road which the people of this county have undertaken to build commences at a point on the Brigham City road, four miles south of Pack's Springs. From that place to a point one mile beyond the summit of the mountain on the Cache Valley side of the divide, the entire contracts have been let, and most of the road over that distance is already graded and ready for the ties. The greater portion of the work on the divide is very heavy, some

of the cuts being through solid stone and gravel cement. There are three particularly heavy fills, the largest of which is that at Cottonwood hollow. It will take 50,000 cubic yards of earth to fill it, and the work has been contracted for by Marion Stevenson & Co., of Richmond. Another, at Birch Creek, will take 40,000 yards of filling, and the job has been taken by Colonel Thomas E. Ricks of Logan. The other, near Pack's Springs, will require 2,500 yards, and Casper Whittle, of Richmond, and his company are busy at work on it. Contracts for several thousand ties have been let, and a number of Cache Valley brethren are in the canyons getting them out. Should the weather continue open, it is thought that the grading will be completed to this city in about eight weeks from now. It is apprehended, however, that the lower bottoms between Mendon and here will freeze up and stop the work. The work has been conducted under the supervision of Bishop Marriner W. Merrill of Richmond and Mr. George L. Farrell of this city.

The route of the road through this valley has not been fully determined. It is likely, however, that after passing over the divide it will run five miles southward to Mendon, thence, in a northeasterly direction to Logan. It will then probably take an almost direct northern route, touching at Hyde Park, Smithfield, Richmond and Franklin, from which latter place it will take the most practicable northward route to Soda Springs. (End of quote.)

Goudy Hogan, pioneer of 1848, wrote in his diary:

1871. . . . This was the first good crop that I have raised for seven years. I was very thankful to the Lord that He had given me wisdom to head off the destroyers once, for I stood in great need of a crop to help me out of debt. I felt that I was a free man once more, that is, I was not altogether out of debt, but the prospects were good if the hoppers would leave the lands. Once more I raised over 700 bushels of grain, while many lost all their crops.

In the latter part of the summer, there was a requirement made from headquarters to build a narrow gauge railroad from Ogden to Soda Springs and wished the people of Ogden and Box Elder and Cache valleys to build road and own a good share interest in it, for the people to do a certain portion of labor to each man. I rigged up my teams and started out in company with William Fisher, and we worked out our portion of work. We were the first who started work on the divide between Cache Valley and Salt Lake Valley. I had fitted out three teams, took my wife, Christiana, and Harriet, my daughter, to cook; Ira and Nels, my sons, and one hired man. Fisher had four teams. We bought seventy yards tent cloth and made a new tent; our calculation was before we left home to do this work on the Utah Northern Railroad and then go south of Salt Lake City and work on the Utah Southern Railroad, for they paid money for work. I was owing a debt of $250 in cash that I gave my note for three years ago with interest; therefore, I made my calculation to earn this with my outfit. We did the work that was allotted to us in three weeks and were going to start south to work, but John W. Young, who had charge of the road, wished us to stay and work on the Utah Northern. There were few could work on the road without some ready means, having lost their crops for so many years, but Brother Young promised to pay us a portion of ready pay, enough to pay up this $250 and take stock in the road for the balance. I worked three months and Brother Fisher was called on a mission to the eastern states. He married my daughter, Harriet, before leaving. My estimate for eleven weeks amounted to $2600. Besides Fisher's work I had two hired men and my own folks to pay in wheat and part in vouchers. These were the railroad vouchers that circulated as money and paid off some of my debts. A deep snow came and we left our tent, provisions and railroad outfits in the snow. We nearly perished going ten miles in the storm, it was that bad. We had to leave one wagon on the road and hitched two span on one wagon. We arrived home in two days over sixteen miles to travel, which we usually did in half a day. My wife, Christiana, and son, Heber D., suffered considerable from the severe storm before we got home. During this winter I hauled wood for two and three fires while the boys were in school. —D.U.P. Library

Early in September 1871, Franklin D. Richards called a mass meeting to be held in Ogden at which time he appealed for public aid, asking the people to do the grading, furnish the ties and any other such labor as was needed for building the road between Ogden and Willard. He received an affirmative answer, and much labor and some cash was promised.

At the same time that work was going north from Brigham City, men from Brigham, Ogden, Willard and other wards were constructing the line from Brigham and Ogden. This link was finished February 5, 1874. Upon this date the following telegram from Brigham Young and George A. Smith who were in St. George, was received by the Utah Northern Officials:

> We congratulate you on the successful joining of the track, and expect for the road a brilliant financial future, and that it will be great and lasting in its benefit to the people; and congratulate you on your zeal and perseverance in building your road, as all railroads should be built, by private enterprise, without the aid or patronage of the government.

Before July of 1872, the Utah Northern had acquired five coal-burning locomotives which were named as follows: No. 1, John W. Young; No. 2, Logan; No. 3, Franklin; No. 4, Utah; No. 5, Idaho. Later, additional engines were purchased from the Denver and Rio Grande Western and other railroads. Among the engineers and firemen were Evan Jones, George Fernes, Dan Roberts, Mark Jones, Philip Phillips, Parley P. Jones, A. M. Carter, William Sprount, Edward Lives, Chauncey West, William Hopkins, Charles Paul and Colline Fullmer. Moses Thatcher became president in 1873.

On January 31st, 1873, engineer Evan Jones brought the first train into Logan, Cache County. A roundhouse, turntable, railroad shops, a passenger and freight station were all under construction. The people of Logan and surrounding towns truly celebrated this event with speeches, dancing, banquets, etc. From the diary of Mary Ann Weston Maughan, published by the Daughters of Utah Pioneers, we quote:

> January 31, 1873. The first trains came into Logan depot about five o'clock p.m., bringing passengers.
>
> February 1st. Today the children of Logan were invited to ride in the cars to Mendon and return. They took two loads, but many were crowded off and disappointed. In the afternoon Orson Smith drove a sleigh load of us, Libbia, Martha, Anne Allen, Sarah Smith and myself to the depot to see the train come into Logan. The conductor invited our company to take a ride to Mendon and return. So away we went on our railroad in Cache Valley. Oh, how wonderful! We returned at 9 o'clock, much satisfied with our pleasure trip. Forty minutes coming from Mendon.
>
> February 3rd. We have a holiday to celebrate the entrance of our railroad into Logan. I took a sleigh ride with Brother and Sister Ormsby. We expect about seventy from Salt Lake City. I signed for four guests. There are four parties in Logan tonight. The train was blocked near Hampton Station with snow and could not get through. The Salt Lake company went back this morning. The train came in today, bringing the brethren who went out Sunday morning to work on the blockade.

June 9, 1873, a branch line from the Utah Northern to Corinne was completed. This town had been established in 1869 by the builders of the Union Pacific Railroad. It was a most convenient spot for departures of freighters going north to the mines of Montana. Soon after the establishment of the branch line, trade was moved over the railroad by way of Ogden.

By June 13, 1873, a railroad line was operating between Ogden and Franklin, Idaho. In a published train schedule, it was noted that the train would leave Ogden at 9:30 a.m. each week day and arrive in Franklin at 4:45 p.m., and again would leave Franklin at 9:00 a.m. and reach Ogden at 4:30 p.m.

Up to this time the greater part of the road had been built by the people. Cache County had appropriated $4,000 and had abated some taxes, which was a great financial help. The Church had also assisted financially. The cost of the project from Ogden to Franklin had been given at $1,400,000. The people living along the line had given nearly half of that amount by their labor and cash donations. Some had received vouchers for which they had expected to be paid in cash, but the company was unable to redeem all of the work vouchers. Hence, the officials of The Church of Jesus Christ of

Latter-day Saints redeemed them, taking in pay the capital stock of the railroad, thereby becoming a stockholder in Utah Northern.

From the *Deseret News* of April 22, 1874, we quote:

> George S. Kennedy, writing from New York under date of March 20th, to Chas. G. Reynolds of this city, said Mr. Richardson, General Manager of the Utah Northern Railroad, and one of the directors of the Union Pacific will be in Helena some time in June. He has all the directors of the Union Pacific interested in the Utah Northern, and they have pledged themselves to do all in their power to see the great enterprise successfully carried out. They will build it to Carpenter's Station (in Marsh Valley) on the stage route. They have abandoned the Soda Springs route, so as to tap the Montana road as soon as possible.

But by 1875 the road was unable to meet all of its expenses and the proposed extension further north could not be built without financial help.

The directors met and decided to ask Sidney Dillon of the Union Pacific for financial aid, but he showed no interest in the proposition. Jay Gould, realizing that rich bodies of silver had been discovered in Montana, arranged for the purchase of Utah Northern bonds held by the Richardsons, securing them for $400,000. The local people received $80,000, or about 10 cents on the dollar for their common stock. Later the Union Pacific purchased Gould's interest and formed a corporation called *The Utah and Northern,* organized in 1877. Soon after the formation of the new company, contracts were let to construct the road further north from Franklin to Fort Hall, Idaho. On December 2, 1877, the Utah Northern was permitted to default on the $1,453,765.32 due on bonds and interest. On April 3, 1878, the assets of the Utah Northern were sold at auction to S. H. H. Clark, general superintendent of the Union Pacific Railroad Company for the sum of $100,000. This occurred in front of the Salt Lake County Courthouse. Mr. Clark then deeded the property to the Utah and Northern Railroad Company, which afterwards floated a bond for $5,000,000 to build the road into Montana. On April 30, 1878, a third company called *The Utah and Northern Railway Company* was incorporated, after the assets of the Utah and Northern had been conveyed to the new company. The capitalization of this third company was for $960,000. *The Utah and Northern Railway Company* was given permission to build the line, which enabled them to proceed through Idaho and on through to Montana. It must be known that at this time the Utah Northern belonged to the Union Pacific.

Congress granted the new company the right of way through the public domain, and gave permission for the road to be extended to Helena, Montana, by way of Bear River, Marsh and Snake River valleys. The line reached Pocatello in 1878 and Camas, Idaho, in

'79. The *Deseret News* dated December 31, 1879, carried a chilling bit of news about the weather along the line:

> The weather along the route of the Utah & Northern Railroad was even colder than heretofore reported. At the terminus most of the thermometers froze up, and it was only by the aid of a spirit thermometer that the weather could be gauged at all. It was 42° below zero. A number of men were severely frost-bitten, livestock was frozen to death, and bread and other articles of food in pantries were caked so hard as to be unfit for use.

In 1880 the road was extended to Dillon, Montana; to Butte in 1881, and to Garrison, Montana, in 1884. The distance from Ogden to Garrison was nearly 500 miles.

THE COALVILLE AND ECHO RAILROAD COMPANY

Even before the Golden Spike was driven, President Young suggested that a railroad line should be built to run from the Union Pacific tracks at a point in Weber Canyon to the coal fields near Coalville in order that coal might be brought to Salt Lake City by rail. From its beginning and until the railroad helped solve it, Salt Lake had a fuel problem. While there was some timber in the surrounding hills, it was not long before the supply of wood was exhausted.

On October 20, 1869, the Coalville and Echo Railroad Company was organized with a capitalization of $50,000. The residents in and around Coalville were expected to contribute labor, supplies and equipment in return for stock in the road. The line was surveyed by Joseph A. West of Ogden, and the work of grading was commenced and contracts made for the furnishing of the ties. It was expected that a surplus of iron would be available when the Central Pacific was completed which would be sufficient for the five miles of road to connect Coalville with the Union Pacific at Echo, but when the Central Pacific was completed, there was no iron left.

> We are informed by Bishop W. W. Cluff, that the prospects for the early completion of the Coalville and Echo Railroad are now very promising. The grading is finished, all the ties are ready, and an agent is now in the East purchasing iron for the road. Bishop Cluff is authorized to let the contract to do the necessary bridging on the line, and if everything connected with the construction of the road moves along as prosperously as expected it will be finished and in running order sometime in October. The Coalville line will be in the vicinity of the Crismon coal mine, about a mile and a half above the aforementioned town. —*Des. News*, Aug. 21, 1872

The following information appeared in the *Gazetteer of Utah and Salt Lake City Directory*, 1874:

> This narrow gauge railroad connects with the Union Pacific Railroad at Echo, and runs to the coal mines in the vicinity of Coalville, the county seat of Summit County, transporting nearly two hundred tons of coal daily from the eight mines now being worked there, with a steadily increasing traffic. The line, of which nine miles are built, is designed to be continued on to the Parley's Park mining district, some twenty miles further. Work on it was commenced in October 1871, but different causes conspired to retard it, and it was not until May 14, 1873, that the first carload of coal was carried over it. Present officers: Joseph A. Young, president; Joseph A. Young, LeGrand Young, H. G. Park, W. W. Cluff, Charles Richins, directors; W. W. Cluff, general superintendent; H. G. Park, secretary and treasurer.

Once more the Coalville bishop was called upon by the authorities of the Latter-day Saints Church to superintend the construction of a new road so that the Salt Lake area might be supplied with coal more cheaply than the Union Pacific was bringing it in. Plans were made to construct a narrow gauge road from the Coalville mines to the Echo Station on south through Summit County in the direction of Salt Lake City. The people were to furnish the labor and ties, and bonds would be issued to purchase the rolling stock and iron. By the fall of 1873 nine miles were completed. At that time it was necessary to transfer the coal at Echo station to the Union Pacific line, then load it on the Utah Central at Ogden. The Union Pacific raised their rates from Echo to Ogden, which almost made the road prohibitive in cost. Finally the line's earnings were not sufficient to meet expenses, and, defaulting on its bonds in 1875, it was sold to the Union Pacific.

THE UTAH EASTERN RAILROAD

As the first attempts to provide Salt Lake City with independent rail connections to the Coalville mines had failed, another company known as the Utah Eastern Railroad filed articles of incorporation on December 29, 1879. Probably no local railroad aroused so much public enthusiasm as did the Utah Eastern Railroad, the name chosen for this road. Editorials and letters to the press extolled the project, pointing out that now cheaper coal for Salt Lake City was obtainable. On December 31, 1879, the *Deseret News* carried the story:

> The project of a railroad between this city and Coalville, it seems, has now assumed a definite shape. Friday night the articles of incorporation were signed, and Saturday, filed in the office of the Territorial Auditor. The name of the new line is to be the Utah Eastern Railroad. Its proposed route is from this city, up through either Emigration or Parley's Canyon, to the summit of the Wasatch range, thence across Parleys Park to the head of East Canyon Creek, thence

across the divide to the head of Silver Creek and to Park City, thence down Silver Creek to Wanship, thence down the Weber River to Coalville, a distance of about fifty miles. $700,000, divided into 7,000 shares, will constitute the capital stock of the corporation. Of these, 510 shares have been already taken and paid for. The actual cost for building, furnishing and equipping the road is estimated at $600,000. The number of directors is nine. The following are their names: Robert C. Chambers, George M. Scott, Henry Dinwoodey, Francis Armstrong, Edmund Wilkes, John A. Groesbeck, Joseph M. Cohen, Robert Harkness and Robert T. Burton, all of this city. All of the above named directors except one, R. T. Burton, subscribed to fifty shares each; Mr. Burton, five, and James McGregor, five. (End of quote.)

January 7, 1880, the *Deseret News* reported that Major Wilkes, surveyor, left for Coalville Wednesday morning. "On to Coalville" was the slogan of the hour and the *News* of May 26, 1880, presented this item:

This important enterprise is being pushed forward with zeal and activity. Major Wilkes, Messrs. R. T. Burton and Frank Armstrong, men who are deeply interested in the road, returned from Coalville a few days ago, and gave glowing accounts of the progress made toward the building of the track. The project seems to meet with general favor. Ten miles of the road, from Coalville toward Kimball's, has been let out and considerable work done on it already. The right of way was easily secured, those from whom it was purchased agreeing to take for payment, chiefly, stock in the road. A contract for 60,000 ties has also been taken which amount is sufficient to timber twenty-one miles of track. Our informants state that words of encouragement and proffers of assistance are coming in from all quarters, and that with continued encouragement and substantial aid there is no doubt that within another year the people will have a railroad of their own. This means a reduction in the price of fuel and plenty of it, at all seasons of the year, saying nothing of the development of our Territory beyond the Wasatch and all the adjoining regions.

Again the *Deseret News* of December 29, 1880, had this to say:

On Saturday afternoon about five o'clock the end of the track of the branch line to Park City was reached, lacking a few rails, and on Sunday afternoon the first shipment of coal to the Ontario Mill was delivered in Park City, being six car loads, about thirty tons, from the mines of the Utah Eastern Railroad Company. There have been a number of reasons for the delay in completing the line to this point. The greatest of these is the want of locomotives to haul the iron and ties as fast as they were needed, although it is a fact that the grading and bedding of ties was not finished until the afternoon of Saturday, and the tracklayers have had to assist in building bridges and making the grade etc., a number of times,

although it was stated several weeks ago that the road bed was ready for the iron. Another cause was the snow blockade which occurred a week ago, in consequence of which all hands had to lay over for a couple of days, and as is the case with all new railroads, considerable work has yet to be done by way of surfacing, bedding, etc., before any considerable amount of traffic can be done on the road. The great question which is asked by everybody now is "When shall we be able to get coal from Kimball's?" It is almost impossible to answer this definitely. Before the road can be depended upon, a number of snow fences and snow sheds have to be built to protect the line from being blocked by snow in the more exposed places, and the Ontario Mill has to be supplied, so I understand, with sixty tons per day of coal. But it is confidently hoped that coal will be delivered at this point in about two or three weeks as there are now two engines on the road, and more cars are expected.

There have been but few accidents happen, and these of a very trifling character; two or three cars thrown from the track, an engine partially so, and a few bruises, cuts, and frostbites, but no one hurt seriously. The new water tank at the head of Silver Creek was placed in position on Saturday, which will obviate a great deal of trouble in supplying the engines with water.

The end of the Union Pacific road was passed by the Utah Eastern track-layers at noon on the 11th inst., they having but a short distance of rail to lay at that time to complete their line. As the narrow gauge engine passed by that point, a salute was given by it, and a hearty three cheers was also given by the workmen of our road. The company will at once proceed to put the road in good running order so as to begin to supply the public with the much needed article of consumption as quickly as possible. (End of quote.)

By December 1890 the road had reached Park City. Meanwhile the capital raised by Eastern backers was not adequate to finish the line, although the owners of the Ontario Silver Mine had made a loan of $100,000 to bring the road to the Park mines.

The two roads, the Union Pacific and the Utah Eastern, were completed about the same time and trains commenced hauling coal to the Ontario Silver Mine, saving the company a great deal of money. According to Tullidge, no one seemed interested in completing the Utah Eastern from Park City to Salt Lake, although a *Deseret News* editorial of December 18, 1880, urged the people to subscribe enough money to extend the road from Kimball's Junction to Salt Lake City. But the disillusioned investors and citizens had failed to collect the needed funds. For what advantages the people living outside of Summit County derived from the road, it might as well never have been built. (End of quote.)

On December 20, 1883, the train made its final run. The *Deseret News* of December 22, 1883, contained this final note: Coal at Kimball's. By a young man who has been working on the

Utah Eastern, the report is confirmed that coal can be obtained at Kimball's by teamsters, at $4.00 per ton. The company is erecting sheds at that point and expect to keep a full supply on hand. They are also about to build a mile of track from Coalville, to connect the road with other mines further up the canyon, so as to insure a constant supply which cannot be done from one mine. Our informant was shown through the old Spriggs' mine last Tuesday, by courtesy of President Cluff, and examined the various rooms where the coal is now being taken out; also the old workings, some of which are filled with water and others where the roof has caved in. Two pumps are kept constantly at work drawing the water from the old works, by which means a large amount of coal can be taken from the lower cuts. It is of an excellent quality. (End of quote.)

ECHO AND PARK CITY RAILROAD

A small branch of the Union Pacific, upon which work was commenced after the original Oregon Short Line was organized but which was included in the latter system, deserves special mention because of its economic effect on the citizens of Salt Lake City. Echo and Park City Railroad, built before it was organized as a separate company, was completed in 1880 by the Union Pacific construction workers, and incorporated on January 18, 1881, soon after completion, for $500,000, with Sidney Dillon and others as the officials. It ran from Echo in Weber Canyon to Park City via Coalville on a route parallel to the narrow gauge railway. Union Pacific later acquired the Utah Eastern which it dismantled, using much of the rolling stock on its then narrow gauge Utah Northern line. At the same time the tracks of the Utah Eastern were being laid, the Union Pacific was laying the road of the Echo and Park City on a route parallel to the narrow gauge Utah Eastern.

SALT LAKE, SEVIER VALLEY AND PIOCHE RAILROAD

In May 1872 a company was formed to build a narrow gauge line westward from Salt Lake City through Rush Valley, the Tintic District, the Sevier Valley west of Sevier Lake to the mines of Pioche, Nevada. It was organized by a group of Pennsylvania capitalists for the purpose of serving mining interest in the areas traversed by the road. Work commenced on May 14, 1873, and twenty miles of grading were completed that year. Work was suspended and track was not placed until the formation of a new company, *The Utah Western*, which took over the property in August of 1874, The Salt Lake, Sevier Valley and Pioche being declared defunct. December 14, 1874, The Utah Western had been officially opened and was running trains between Salt Lake City and a point in the mountains near Garfield Beach. In January 1875, an announcement was made by the company to the effect that it planned to construct ten flat cars using all Utah products, iron and wood. On April 17, 1878, it was taken over by

the bondholders, foreclosed in 1880, and *The Utah and Nevada* was organized on February 16, 1881, to take over this line and build from its terminus to Tanner's Springs, Juab County. This new company was organized by Eastern capital — Abraham Gould and others, and was capitalized at $2,000,000. Future plans were to extend the line via Dugway and Deep Creek to Bodie, California. The planned construction never materialized, and on June 17, 1881, the existing line was acquired by the Union Pacific.

—*Utah Since Statehood*

From the *Utah Gazetteer,* 1884, we quote:

> This narrow gauge, which now extends a distance of some thirty-seven miles, was originally known as the Salt Lake, Sevier Valley and Pioche Railroad. The name will indicate the contemplated object of the road, which was designed to tap the extensive mines in that region, and, passing southward through the mines and agricultural lands of the Sevier Valley region, makes its terminus finally at Pioche, Southeastern Nevada. It has never attained the magnitude intended, and unless unforeseen circumstances should arise, never will. The road was commenced in 1872; work was suspended in 1873, when some twenty miles had been completed, but was resumed again later on and pushed as far as Stockton, its present terminus. During the summer months the road is greatly used by excursionists who go to the lake to bathe. W. W. Riter is superintendent; S. F. Fenton, general passenger agent.

From an article which appeared in the *Deseret News* of April 2, 1873, we quote:

> Yesterday a telegram was received by General P. E. Connor from H. S. Jacobs, England, stating that the latter had just concluded negotiations for sufficient iron to lay fifty miles of track on the Salt Lake, Sevier Valley Pioche Railroad, and also for two locomotives and five cars. The dispatch was dated at New York. It may be reasonably expected that the work of construction on this line will now go forward with a rush and dash. That's right, push along the railroad development.

THE SALT LAKE AND WESTERN RAILROAD

The Salt Lake and Western starts at a point called Lehi Junction, about a mile north of Lehi City in Utah County, and runs southwest as far as Tintic, one of the best mining districts in the Oquirrh Range, and in Juab County. It is fifty-seven miles long. The general understanding, when this line was commenced, (1878) was that it would be pushed through to California, crossing Nevada and tapping some of the rich mining districts in that state. The project has not yet, so far as is publicly known, been entirely abandoned, and is still numbered among the contemplated projects. At present the line

is made to pay by hauling ore containing precious metal, and by the conveying of iron ore to the smelters for fluxing purposes. It is standard gauge and is a Union Pacific branch. W. W. Riter is superintendent. —*Utah Gazeetter*-1884

UTAH AND PLEASANT VALLEY RAILROAD

A railroad company organized in 1875 by a group of Springville residents ran a connection with the Utah Southern at Provo to the coal fields of Pleasant Valley, just over the summit of Spanish Fork Canyon. Construction started in 1876 and progressed slowly. Reports in 1877 indicated progress in grading, with expectations that coal might be hauled the next winter, but it was not accomplished. The Utah and Pleasant Valley Railroad was apparently completed between Springville and the mines in 1879. The road changed hands in 1881, with C. W. Scofield as president, and was sold to Rio Grande on June 14, 1882.

The following history was taken from *Heart Throbs of the West,* written by Hannah M. Mendenhall:

Milan Packard, one of Springville's pioneer capitalists, was closely identified with the material interests of the territory. He worked as a freighter to the Missouri River, to Montana and later to California. He was interested in some of the mining prospects, but later became a successful merchant. Among other interests, he with others, sponsored and financed the building of a narrow gauge railroad from Springville into the coal fields of Carbon County, Utah. Coal had been discovered, but there was no way to get the product into the valley except by wagons, which were inadequate to meet the demands. The road was started September 7th, 1876, with Mr. Packard as contractor. Starting from the tracks of the Union Pacific in Springville, it ran through Spanish Fork Canyon, over Soldier Summit into the mining camp of Scofield.

Mr. Packard employed many men, both as sub-contractors and workmen, and the men received part of their pay in merchandise from his store. Calico was the standard cotton material used for clothing at that time; consequently many of the workers took calico as pay, so the road was christened "Calico Railroad."

Joseph Vane, a pioneer residing in Springville, worked on the road, laying and fitting rails as well as helping to build bridges. He served as roadmaster after its completion. James Kirkham and Robert Watson were pile drivers for the bridge work, and they were aided by mules. Mr. Vane said, "The mules knew just as soon as the hammer went down, they could back up, nothing could induce them to take a step farther." Martin Crandall procured a contract for grade work and the following men helped: Richard L. Mendenhall, Charles M. Bird, Martin Bird, LeRoy Bird, Hyrum B. Perry, Richard Thorn, Ted Marshbanks, Bill Sumsion, and Ed Haymond. Among the first engineers were Jack Couly and a Mr. Shroad. Don Huntington was the first conductor.

This narrow gauge road was used until 1883, when the Denver and Rio Grande bought it, changed the grade to make an easier climb, and continued the road farther into the coal fields of Carbon and Emery counties. One of the miners said, "It didn't matter what time of the day or night the train reached the mine for coal, the miners filled the car and sent it on its way down the canyon, so it would hurry back for more coal."

The following was taken from the *Deseret News* of November 19, 1879:

The Pleasant Valley narrow gauge railroad from Springville, having reached the coal beds, the coal from these mines is now upon the market. It is delivered in Provo at $6.10 per ton, and is becoming quite popular. It is said to contain more gas and will generate more heat than the celebrated Rock Springs variety, but burns out quicker than the latter. Utah County is highly favored in being supplied with a good article of coal at such reasonable rates. A number of new cars for the P. V. road went over the Utah Southern by Saturday morning's freight train, which shows that the owners of the new line anticipate a good business this coming winter. An effort may be made to put the Pleasant Valley coal on the Salt Lake market, but some are of the opinion that the eastern owners of the Utah Southern, also interested in the Union Pacific and its coal transportation monopoly, would not view such a move with much favor. The Pleasant Valley mines were until recently owned principally by Mr. Packard of Springville, who has also been a leading spirit in building the road, but he has now disposed of the greater portion of his interest to an eastern company.

OGDEN AND SYRACUSE RAILROAD

One more railroad was built from Ogden during this period of rapid railway expansion. In 1880 the Ogden and Syracuse Railroad Company was incorporated with a capital stock of $200,000. The purpose was to construct a railway to the famous bathing resort on the shores of the Great Salt Lake. —*Beneath Ben Lomond's Peak*

OREGON SHORT LINE RAILROAD COMPANY

In the late 1870's plans were made by Union Pacific officials to begin construction at Granger, Wyoming, on a line which was to take the Union Pacific into Huntington, Oregon. After making this decision, the Oregon Short Line Railroad Company was incorporated under the laws of Wyoming on April 14, 1881, with the capitalization of $27,460,100 with the stock selling at $100 per share. Immediately surveys and negotiations for a right of way were made and soon construction was started. The road was completed in 1884 to Huntington, where connections were made with, and trackage rights acquired over, the line of the Oregon Railway and Navigation Company. On August 1, 1899, this road took over the Utah North-

ern, the Utah Central, the Utah and Nevada and other Union Pacific controlled lines in Utah. Thus a great system subsidiary to the Union Pacific was born, running from Frisco, Utah, in the south to Granger, Wyoming, and Portland, Oregon. It included all the Union Pacific holdings west of Granger, with the exception of the main line track into Ogden. The line operated 178 locomotives, 1,146 passenger cars and 5,871 freight and miscellaneous cars, and the trackage included 1,698 miles and an army of employees insured efficient operation of the line.

In 1893 the Union Pacific was forced into receivership, and a separate receiver was named for the Oregon Short Line and Utah Northern. Early in 1897 this road was sold under foreclosure and reorganized independently on May 16, 1897, as the Oregon Short Line Railroad Company. By 1898, however, the Union Pacific had re-purchased a controlling interest, and by the end of 1899 held nearly all of the stock of the Oregon Short Line, which again became a part of the Union Pacific. —*Union Pacific Story*

SANPETE VALLEY RAILROAD

One of the first, if not the first coal discovery in the State of Utah, was the finding of the coal measure southwest of the town of Wales in Sanpete County. This mine was worked locally to a small extent for a number of years by people of Welsh extraction living in Wales. The property came to the attention of federal officials, then in Salt Lake City, and a company was organized by them to secure and operate the mines. The two Salt Lake federal officials were Messrs. Lynch and Moore, and I believe associated with them were some Interior Department officials of Washington, D.C. They had great hopes of making a success of this property by manufacturing coke, and had in mind the construction of a railway from the mines to Nephi, which city it was assumed would soon thereafter be reached by an extension of the Utah Southern Railway. The coal was mainly used to make coke but an expensive process was necessary to eliminate the foreign matter in order to make a satisfactory coke. This company erected a coal washer and coke ovens, securing fire bricks for the ovens from a Salt Lake citizen whose name looms large in the history of Utah thereafter. I refer to ex-governor, Simon Bamberger. He was interested in the plant that furnished the fire bricks.

It seems that the company was unable to carry out its plans by securing needed capital, and was unable to pay its bills. Mr. Bamberger saw an opportunity of carrying out the plans if he could control the property. He was able to gain control on account of purchasing other claims against the company. He was firmly of the opinion that the scheme as planned would work out to a successful conclusion if capital could be secured. With this end in view he went to London, accompanied by the late Mr. Charles W. Bennett,

who at that time was a very prominent lawyer in Salt Lake City. He had a large acquaintance in London, having been an attorney for some Utah silver mining properties owned by London citizens. Messrs. Bennett and Bamberger were successful in securing the capital from a company organized and known as the Central Pacific Coal and Coke Company, Ltd. The president of this company was Sir Henry Tyler who at that time was president of the Grand Trunk Railway of Canada, and a very prominent railroad and business man in London. It was decided by the Central Pacific Coal and Coke Company to build a railway from the mines to a connection with the Utah Southern at Nephi, the Utah Southern having just reached Nephi on its way south. This was in the year 1881. The survey had been made and right of way secured by the former company in the year 1879 for the construction of a road from Nephi to the coal mine, but no actual work was done until 1881. In that year the Sanpete Valley Railway was incorporated under the laws of Utah. It was a subsidiary of the Central Pacific Coal and Coke Company who furnished the money for the construction of the road. A contract was entered into by and between the Central Pacific Coal and Coke Company and Mr. Simon Bamberger for the construction of this thirty-mile narrow gauge railway, and the line was completed in 1882. It is interesting to note in this connection that the rails used were iron and were manufactured in Wales, shipped to San Francisco by boat and by rail from San Francisco. These were about the only iron rails that were at that time used in the West, steel having replaced iron rails throughout the country in general. These old iron rails were very serviceable, however, and when finally replaced by steel rails, had a high salvage value because of the superior iron used in their manufacture. They were ultimately traded to the Colorado Fuel and Iron Company for steel rails still in service on the road.

The title of the company, "Central Pacific Coal and Coke Company, Ltd.," was decided upon because of the fact that the promoters were of the opinion that this coal would find a market, not only in Utah but to a large extent for the supplying of the Central Pacific Railway with fuel and also supplying local smelters with coke. The plans, however, all came to naught because the Rio Grande Railway was built into Utah in 1882, and they were able to furnish a superior quality of coal and coke at prices less than it would be possible for the Central Pacific Coal and Coke Company to produce and market their product. This condition therefore brought about the failure of the company, almost in its infancy.

The writer of this brief sketch came west as a very young man to work with the Rio Grande engineering department and was connected with that company a couple of years and until the completion of their line to Ogden. Having learned of the conditions pertaining to the operation of the Sanpete Valley and having heard rumors that it was the intention of the company to change part of the location of their line so as to reach the agricultural sections of Sanpete

and Sevier counties, he called upon Mr. Bamberger and was engaged by him to make the necessary railway location. His instructions were to utilize as much as possible of the existing line from Nephi and to make the initial point of his survey at some place between Fountain Green and Moroni; locating a line through Moroni and Ephraim to Manti. His instructions were to pull up the track from said junction point to the coal mine and relay the rails via Moroni to a point beyond Moroni as far as material available made it possible to go. This was in the latter part of the year 1884 and track was completed to Chester in 1885. Mr. Bamberger's plans at that time contemplated securing funds to extend the road to some point in Sevier County, and also to build from Nephi to a connection with the Denver & Rio Grande Western at Springville, a survey for that proposed part of the road having been made. The outlook seemed promising that the development of such a narrow gauge feeder to the Rio Grande would develop considerable business and the writer felt that his interests justified him in considering the proposition that he accept the position of superintendent. He did so in the year 1885, fully expecting that funds would be forthcoming for the extension of the road as outlined above (at any rate the southern extension). Such, however, was not the case, possibly on account of the fact that the Central Pacific Coal & Coke Company was in the hands of receivers in London and this expansion could not be accomplished until a reorganization was perfected.

The extension from Chester to Manti was ultimately brought about by the efforts of Mr. Theodore Bruback, who succeeded Mr. Simon Bamberger as president of the Sanpete Valley Railway. Mr. Bruback took charge of the road in 1888 but on account of some litigation that had to be straightened out to clear title, it took him much longer than anticipated to get the reorganization perfected and the funds available for the rehabilitation and extension of the railway. Upon conferring with the receivers of the property in London, he ascertained that Mr. Charles Morrison was one of the principal bond holders. Mr. Bruback succeeded in persuading Mr. Morrison to undertake the reorganization and buy out the other interests. This being done, Mr. Morrison became the sole owner of the property, with the exception of a small holding kept by President Bruback. From 1888 until 1892, the road enjoyed a fairly lucrative traffic even though handicapped by the fact that most freight and passengers from Sanpete and all from Sevier moved a considerable distance to reach the railroad. The bulk of Sevier traffic however teamed to Juab to the Utah Southern. The local business directly on the railway was limited to the towns of Nephi, Fountain Green, Moroni and Chester. All other freight from Sanpete and what was secured from Sevier had to be teamed to the railway. Passengers were moved by stage or private conveyance. While the road enjoyed a fairly good business, they could not secure remunerative revenue on account of team competition and short haul. A good many of the merchants felt

that on account of the fact that they had to use teams to get to the railway, they might as well haul to and from Salt Lake City. To meet this competition low through rates had to prevail. In spite of this fact, however, as stated above, the road enjoyed quite a fair business though never able to make interest on their bonded indebtedness.

About 1890 the Denver & Rio Grande decided to build a branch line from Thistle to Sanpete and Sevier. Their first plan was to build from Springville down to Nephi and to absorb and extend the Sanpete Valley Railway. In fact their plans were so definite on this point that they secured an option for the purchase of the Sanpete Valley Railway. Afterwards they declined to exercise the option and instead decided to build a branch road from Thistle, via Fairview, Mount Pleasant and Manti to Salina. This branch was afterwards extended from Salina to Marysvale. The Rio Grande having declined to exercise their option and also having decided to build the Thistle branch, left the Sanpete Valley practically high and dry. It was finally decided by the Sanpete Valley, in order to protect their investment, to extend the line from Chester to Manti and ultimately beyond. In fact, a company called the "Utah and Arizona" was organized which contemplated the extension of this road to a connection with the Santa Fe in Arizona. Funds were secured for the extension from Chester to Manti in the year 1893. Thereafter the Sanpete Valley secured traffic, in competition with the Rio Grande. The road was handicapped, however, as the Rio Grande had changed from narrow to standard gauge. To overcome this handicap, the gauge of the Sanpete Valley was changed from narrow to standard in the year 1898. Prior to this and in the year 1897 the road was extended (as a narrow gauge) from Manti to some coal mines located in Six Mile Canyon, east of the town of Sterling and a six-mile branch was constructed to reach the Nebo Stone Quarry in Salt Creek Canyon. President Bruback was firmly of the opinion that this coal development provided the solution of the railway troubles. The coal at Sterling, geologically, was the same as the coal mined in the Castle Valley measures, or Book Cliffs field. The company spent a large sum of money, something like $250,000 in the development of these coal mines but on account of the fact that the coal was in a faulted area the quality was not equal to the Book Cliffs coal of Castle Valley, and cost of mining was more expensive. However considerable coal business was handled as well as other freight and livestock, after changing the gauge to standard. The S.V.R. had the advantage of a connection with the Union Pacific and affiliated lines and could thus make a strong bid for competitive business. While considerable business was secured, the road was unable to make a satisfactory financial showing, especially as the Union Pacific entered into a traffic contract with the Rio Grande which cut the Sanpete Valley out of participation in through business. These traffic matters were adjusted after a year's time but the railway never made any money over and above operating

expenses and taxes, and the coal mines were operated at a loss. In view of this fact Mr. Morrison became discouraged and was unwilling to furnish the additional capital that would have been required to extend the road further to the south.

It was not until the year 1910 that the writer knew that Mr. Morrison was one of the wealthiest men in England. At that time, when on a business visit to London, he called at Mr. Morrison's office and had a long talk with Mr. Cooper, the general manager of Mr. Morrison's numerous affairs. It was impossible to arrange for an interview with Mr. Morrison as he was then very ill and not expected to survive more than a few days longer. Mr. Cooper stated that Mr. Morrison was then past ninety years of age, being a man of great wealth, the inheritance tax that would be payable upon his death, would be over five million dollars. Mr. Morrison passed away while the writer was in London and the statements made by Mr. Cooper were corroborated in the London press at that time. With a man of such great means controlling the struggling Sanpete Valley Railway, it was certainly to be regretted that a better showing could not have been made in order to secure from him the capital to have made the Sanpete Valley road a first class transportation system, and an important coal carrying line by reaching the Castle Valley coal measures.

Going back in the story some years, I stated that the writer's connection with the Sanpete Valley road began in 1884. He had been waiting for years for a future that had failed to materialize and finally accepted a more lucrative position with Mr. McCune and his company operating in South America. This was in 1904. While he was away, in the year 1908, the Sanpete Valley Railway was sold to the Rio Grande Western and is still operating as a branch line though some of the trackage has been abandoned. To the Rio Grande it has been a satisfactory investment, not that it pays interest on its cost, but on account of the fact that it eliminates entirely the competition that formerly prevailed, and in turn the Rio Grande is able to compete on Nephi business with the Union Pacific. It is fully as seedy and run down a looking railway now as it was when under independent ownership and during the most checkered period of its existence as the Sanpete Valley Railway. Before the sale of the property, the Sanpete Valley operated fifty-seven miles of line. There is now operated by the Rio Grande only the line from Nephi to Ephraim, a distance of thirty-five miles.

While the railway certainly had a checkered career before the sale to the Rio Grande, and proved very unprofitable to its owners, it was, withal, a boon to the people of Sanpete Valley in that reasonable rates prevailed even when, in railway parlance, the tributary territory was exclusive to this, the pioneer line of Sanpete. Many thousands of dollars were saved to the citizens of the state in transportation costs through the operation of this railway, particularly after its competition with the Rio Grande.

The writer had twenty years' service with the company and looks back with keen appreciation to the friendships established with the citizens served by the transportation facilities he was in charge of during this time, and the loyal cooperation given by the employees, some of whom it is a pleasure to state, are still in harness. Mr. Hornung, now retired, succeeded the writer. Mr. Bradley, another old timer, is still in service.

—H. S. Kerr, *Heart Throbs of the West,* Vol. 2

THE RIO GRANDE WESTERN RAILWAY

In the year 1870, newspapers told of a railroad being planned for the west. It would crowd out the wagons hauling away newly found wealth. Up to that time, the early settlers figured they had the best they could hope for — stages for mail and passengers and slow freight wagons to haul in freight. William Jackson Palmer, a surveyor before the Civil War and a general when the war ended, put his blue coat and his ribbons aside and started working for the Kansas-Pacific Railroad because it was stretching westward. Four years after the war ended, the ex-general came with the railroad as superintendent, laying the first rails into Denver.

Then he decided to go into business for himself because a pan or a sluice box just would not produce enough daily "dust" to keep a man in grub. It was the "hard rock" miner's turn now. But large-scale gold mining at high altitudes required heavy machinery up near the peaks, and economical transportation to bring down the bulky ores. That is where Palmer and his Rio Grande entered the picture. He needed money, and his friend, William Bell, knew how to raise money and he did, but not enough to build in the usual way. The easiest way was to make everything smaller — the passenger vehicles, the freighting units, track layout, and the locomotives.

To build a railroad through the mountains was very expensive. The ties for the narrow gauge railroad had to be shipped from England until Mr. Palmer formed a company, The Colorado Coal & Iron Company, to make the rails for his train to run on instead of the imports. To lay cross ties and rails on long roundabout routes in the remote rugged areas was expensive construction. To get locomotive fuel, new coal fields had to be found and tapped. Ties had to be hand-hewn at "tie camp" villages in the forests. Road beds had to be gouged in cliffs a thousand feet high; canyons spanned by trestles. Everything to support a railroad would have to be developed. Impossible grades had to be ascended and there were tunnels to cut through granite peaks. On July 28, 1871, a spike anchored a rail, a yard of it weighed only 30 pounds. It came from England.

A mule was the original switch engine and a piece of plain paper served as a timetable. When three miles of track had been laid, a couple of weeks later, a miniature train was pointed south

from Denver. Sure enough it moved, up to 15 miles per hour. The baby narrow gauge D. & R. G. Railway had taken its first step.
The Green Light

An interesting description of living conditions during the building of the Colorado division of the road was found in the diary of John Barker of Logan:

> We arrived in camp on Wolf Creek — shovelled away 18 inches of snow and camped in tents. The track layers should have been farther ahead, and H & H (Hammond and Hendricks) took the train — so the R. R. furnished tents, stoves, tools, and work until we do get on the construction train. On Jan. 1, 1881, opened store in the tent and sold $80.00 of goods. Hammond & Hendricks took charge of the camp. C & F men are all working for H & H. In one corner of our tent sleep Bro. Hendricks and one of his sons, in another corner Bro. M. D. Hammond and in another next the store our bed — hay spread on the ground divided by ties — the goods near the door. I was very busy for several days, Wille went to help in the kitchen. We had 2 cook tents, 3 stoves, 4 or 5 cooks and 2 dining tents and about 12 sleeping tents — the night guard came along in the mornings at 5, calling, "Roll out boys." I got up, lit the fire, thawed out Wille's boots and started him to the Kitchen, and often Breakfast was eaten while it was freezing on the table, and the cry came, from Bro. Orchard "All aboard" and men started out to work before daylight in gum boots, overshoes, big coats, gloves, etc., with all short-handled shovels with iron handles, shovelling snow off the grade. Bro. Orchard's wife and 3-year-old boy and J. W. Hendricks' wife are here and eat in their tent with the Bosses. I also have charge of the kitchen supplies. About the 10th or 15th we moved camp down here to Chama, for the train had passed us, and now we are camped on a small willow bottom ½ mile from town. The wagon road 2 Rods on one side the R. R., 10 rods on the other, but here the ground was not frozen under the snow. H & H has a camp of 25 men and teams 20 miles down the road hauling in 40,000 ties. And now that I have caught up with my books in which I have 200 accts., I have a very easy time.

Again quoting from *The Green Light*: For the next three years he (Palmer) moved ahead, then for four years there was a depression and a court battle, which the D. & R. G. won against the Santa Fe in the U. S. Supreme Court. During the years of idleness, the Rockies had been invaded by surveyors — over 500 of them. They made the way easier with their transits. They also saw rich fertile valleys good for farming and grazing, forests of timber, rich veins of ore, all waiting for a railroad. They talked about it to

other men, so then came the miners, the stockmen and the men looking for homes.

In 1881 Palmer incorporated the Rio Grande in Utah. His Colorado Company was rapidly approaching Grand Junction and his Utah forces had to rush to make their appointed rendezvous at the Colorado-Utah line. In less than two years, his hardy Mormon track gangs scaled the Wasatch and raced across eastern Utah to make contact with the west-bound track gangs on April 8, 1883. A month later the world's longest narrow gauge railroad — 720 miles from Denver to Ogden — was open for business. (End of quote.)

The *Deseret News,* commenting upon the completion of the line to this point said:

> . . . The Rio Grande Western road enters Utah a few miles south of what is the Book Cliffs. It passes over a most uninviting country from Grand Junction to Sunnyside. Here it begins to enter a fertile valley among some mesas, and nine miles farther, at Castle Gate, it enters the coal camps, following up Price River Canyon until that gorge opens out into Pleasant Valley at its head. It then ascends this high plateau and crosses the range at Soldier Summit about 7,464 feet above the sea. Thence it descends Spanish Fork River, passing through the Wasatch at Spanish Fork Canyon, thence out into Utah Valley, circling around Utah Lake along the line of fringing settlements to the lower end, where it follows the Jordan River for a few miles and then enters Salt Lake Valley. It traverses the center of this valley to Salt Lake City, and thence runs northward to Ogden. It derives its surname, "The Scenic Route" from the many beauties and wonders of nature through which it passes.

General William J. Palmer, David C. Dodge and William A. Bell now turned their attention to furthering the road in Utah. The *Salt Lake Herald* of May 14, 1881, carried this message:

> The railroad law in force in this territory makes it necessary that of the incorporators of any railroad to be run within the limits of Utah, two thirds shall be actual residents of this territory. Now the Denver and Rio Grande is a private corporation, and did not get its charter from Congress, as did the Central Pacific and the Union Pacific, and for that reason it is forced to comply with the provisions enacted by the legislatures of the several territories and states through which the road intends to run. For this reason the Denver and Rio Grande people induced some friends in this city to organize a company as required by the laws of Utah to secure the right-of-way for its line through this territory.

The smaller railroads acquired by the Denver and Rio Grande were those built to Utah mines; such as, the Bingham Canyon and

Camp Floyd, the Wasatch and Jordan Valley, and Utah and Pleasant Valley.

In 1881 the stockholders of the Denver and Rio Grande were offered the option of buying stocks and bonds in the new corporation "at six percent interest, plus a bonus of $500.00 of stock, or every bond taken at par." Although the Western was not finished, the Denver and Rio Grande leased it in 1882 for a period of thirty years, and this involved 300 miles of track, running from the Colorado boundary to Salt Lake City. Other small lines later aggregated 469 miles. The management of the road was given to a chosen superintendent who was assigned the responsibility of operating and actually managing all the services of the new railroad. It must be said that the two companies, the Denver and Rio Grande and the Denver and Rio Grande Western, were different companies, although they were officered by about the same men.

Both the people of Colorado and Utah seemed worried about who would obtain control of the trade of the agricultural products and other branches of business. From an editorial in the *Deseret News* we quote:

> The Denver papers are having a great deal to say about the Denver and Rio Grande Railroad and its connection with Salt Lake and Ogden. Some sensible remarks are made and some not so sensible. It is conceded that Utah will, by means of the new line, obtain control of the grain and vegetable trade with western and southwestern Colorado, and perhaps of other branches of business. But the fear that the new road will discriminate in freight for the special benefit of Utah dealers and against the Denverites, appears to us ill founded and unreasonable. Also, the notion that special efforts will be made in favor of the "Mormons" seems to us groundless and absurd.
>
> Completion of the narrow gauge railroad line will no doubt prove as beneficial to Utah as to other sections of the country. The road which offers the best facilities and rates to patrons will gain their trade. One road will doubtless prove the more advantageous to some shippers and buyers and the other road to others. There will be trade enough for all. Utah is bound to grow and advance in business of every kind, and whichever road gains the greater patronage will obtain it on business principles, into which mere sentiment will not enter. It will be neither "Mormon" nor "Gentile" distinctively — it will be neither Union Pacific nor Rio Grande as a matter of friendship or hostility. There is room for both roads and traffic also and we wish them both success.

On March 30, 1883, the Denver and Rio Grande crews met those of the Western at Green River, Utah, and here the last spike was driven and the rails joined together. *The Saturday Evening Deseret News* of March 28, 1883, published the following:

> The Denver and Rio Grande Railroad is expected to complete its line connecting the capitals of Colorado and Utah by Friday, March 30th or Saturday the 31st at the latest. Regular passenger traffic however will not be commenced just yet, but the road will be open for freight by the 1st of April.
>
> The benefits of this new outlet for Utah will be very soon perceived. Leaving out all considerations of the competition which it may promote for the passenger and carrying trade to and from the east, there will be new fields opened for local enterprise. Between Salt Lake and Denver, supplies will be needed by the settlers in new places, and our farmers and gardeners will find a market for their produce all the way to the Colorado center.
>
> Utah vegetables and fruit are noted for their excellent quality and flavor. The new road will afford facilities for their shipment to points both in Utah and Colorado, where they are not raised at present and will not be for some time to come. . . .
>
> The connection of this city with Denver, of this Territory with the flourishing State of Colorado, cannot fail to be beneficial to our commercial interests, if our business men and producers are only wide awake to the opportunities that will be afforded them by the completion of the new road. We congratulate the Denver and Rio Grande Company on their enterprise, and wish it full and complete success in every way.

As late as 1896 the editors of the *Young Women's Journal,* a publication of an auxiliary of The Church of Jesus Christ of Latter-day Saints published the following:

Utah's most important railroad is the Rio Grande Western Railway — at least that progressive corporation has been closely identified with the growth and development of the State since March 1883, when the last rail connecting the east with the west, was laid. It begins and ends in Utah except that small part of the main stem which dips into the Centennial State to join forces with its strong eastern connections. A brief outline of its history is all that this space will permit, but in that short delineation it will be the purpose to place before our readers the fact that the Rio Grande Western Railway has made itself by building Utah. It has been sufficiently enterprising to realize that in the ambition, purposes and development of this great State lay its own success. The railroad therefore, has always joined hands with the elements that have led in the prosperity of the State. It has been a puissant case of casuistry with the officials of the company, that to develop the natural resources of the State their efforts must lie in the direction of reclaiming the vast arid regions, — and, while it must be admitted that the railroad is not the result but the very means of civilization, and that the penetration of the desert with these drastic threads of steel would naturally result in the ultimate reclamation of all available soil and resources — nevertheless, these men of the R.G.W. have

encouraged and fostered every enterprise, every hope, every thought, until now the State with the added stimulus it has received in becoming one of the union of States, has its diversified abundant resources in the trend that leads to perfected development.

The Rio Grande Western Railway was not the first to push its way into the desert and valleys of Utah, nor is it the last. Others will come, but while we are waiting, the R.G.W. is silently forging through in the valleys and passes in its onward march to the sea. Its Sanpete and Sevier branch, completed to Manti in December 1890, and to Salina in July of the following year, and now in the course of construction to Richfield and Marysvale, is perhaps the only line of railway extension now being built between the Missouri River and the western coast. The total mileage of the Rio Grande Western is not great — it has but 530.9 miles in its system, but its branches to Eureka and the Tintic mining district (completed in December 1891), to Bingham, to Scofield, and to Salina, thread the valleys of the State, making it possible for the husbandman to market his goods, and the miner to sell his product. This little line of railway has kept abreast of the times in other ways. Its road bed and equipment have been fashioned after established successes of the older allies of the east. All modern appliances for the safety, convenience and comfort of its patrons are ferreted and adjusted to its requirements.

If the future of a new State is dependent upon its enlargement, liberality and aid of its transportation facilities and influence, then the young State of Utah with an organization of the character of its greatest railroad, may front the future without fear of disappointment. (End of quote.)

The Rio Grande Western was originally a narrow gauge line, hence its other surname: "The Little Giant." Later, its business having demonstrated the necessity of a closer tie between its connections east and west for the purpose of handling more efficiently its increasing through traffic, and preventing or postponing the building of paralleled and rival lines, it was determined to broad gauge the road. The necessary funds were promptly raised and the work forwarded to a finish.

Tintic District. In 1891 the Rio Grande Western entered Tintic by way of Homansville Canyon from the Utah County side, and gave the district the advantage of two railroads. By 1905 thirty-one mines were shipping by way of the Rio Grande and the Salt Lake Railroads, and in 1906 the unusually large production for the year was valued at eight million dollars. This was helped by the Beck Tunnel and the Colorado Consolidated, which had come into production. In 1908 a custom ore sampling mill was erected at Silver City and could be served by both the wide gauge railroads as well as the narrow gauge of the Eureka Hill Railroad, which was built by the Knight Syndicate to haul their ores to this sampler, as well as to the smelter which the Knights were also building near Silver in that year. —*History of Juab County, DUP*

Thistle to Manti. A standard gauge roadbed was graded from Thistle southward to Manti in 1890, on which narrow gauge track was laid, the purpose being to plan for standard gauging later. This line was completed on December 29th. In 1891 a separate corporation, the Sevier Valley Railway Company, was organized for the purpose of extending the Thistle-Manti branch. This extension was leased to and operated by the Rio Grande upon completion July 15th. In the meantime, the original Thistle-Manti branch was standard gauged, thus creating a through standard gauge line running from Thistle to Salina. This branch was built to give the Rio Grande entrance into the fertile valley of the Sevier River. Sanpete County had developed by this time into one of the richest agricultural areas of the state.

During the years of 1890-91 the Rio Grande Western Railway was extended through the entire Sanpete County from north to south, connecting all of the prominent cities and towns, and adding over sixty miles to the railroad trackage in the county. Two years later, the Sanpete Valley was extended to Morrison and made a standard gauge. These roads furnished employment to many citizens and opened a market for ties and timbers, thus stimulating a lumber-making industry until the vast resources of the canyons were partially utilized in the rapid accumulation of homes and property for which the county is noted far and near, wherever its people are known. The railroads opened the dormant channels of trade, established new telegraphic services and express delivery, and placed every colony of the county on the great highway of commercial prosperity.

In the meantime, in 1900, the Rio Grande had extended its main Sevier Valley branch on southward to Marysvale, and into Salina Canyon in 1903. This line was abandoned in 1942.

Provo to Heber. In 1898 the Rio Grande built a branch through Provo Canyon from Provo to Heber City. This same year the Pleasant Valley branch was extended from Scofield to Clear Creek by the same company, and later a branch was built to Sunnyside.

In 1900 the Rio Grande standard gauged the Park City branch, finishing on July 1st of that year. This entailed the construction of a connection from Sugar House to the yards at Roper, the only previous connection being with the Salt Lake and Fort Douglas Railroad, and much regrading and realigning throughout the length of the line. A branch from west of Midvale to Garfield was completed in 1905, and another from two miles west of the same point was begun to run above Bingham to the extensive copper mining operations being developed there by the Utah Copper Company. Completed in 1906, the purpose of the two lines was to haul low grade ore from the mining operations to the mill at Garfield.

Soldier Summit. During 1912 surveys were made to eliminate the four percent grade between Tucker and Soldier Summit. The great tonnage of coal and increasing amounts of through freight had reached proportions which could no longer be crowded through this

bottleneck. The new line was built in conjunction with the Utah Railway which gave a joint trackage agreement to the new company. Actual construction started in February 1913 along a new roadbed four and one-half miles longer than the original, making a great "S" curve just west of the summit. At the same time, double tracking of the section between Castle Gate and Kyune was done, so that by January 1, 1914, a continuous double track over the mountains from Castle Gate to Thistle was in operation. Double track operations were also possible from Thistle to Springville under the joint trackage agreement with the Utah railway.

Through the years, this railroad, like others, experienced its ups and downs, its financial, construction and labor problems, which were generally solved, but the greatest task of all was the laying of double trackage. The story of the work at Soldier Summit, as only one of the many almost insurmountable feats, makes the accomplishments attained by the officials and workers of this great railroad company a monument to valor and courage.

Later the *Salt Lake Herald* claimed that the Denver and Rio Grande was one of the most enterprising and active railroad corporations in the world, and that its stockholders were known as some of the wealthiest people in the area. It gave the number of men employed as 33,000 who were digging through the mountain passes, putting in bridges and laying rails. The *Herald* praised those who were responsible for having Utah a part of this project, knowing well that it would aid in the development of its resources.

Many of the workers who had been associated with other roads expressed their good will toward the Denver and Rio Grande Western, feeling that now the Union Pacific would not have a monopoly of the business of the area. In 1884, after the Rio Grande had purchased the "Calico Railroad," the *Salt Lake Directory* printed the following:

It has now been incorporated by the Denver and Rio Grande and become a part of its main line. The old organization, naturally, is now defunct. The impending extensions of the Denver and Rio Grande are very numerous, and at this writing there seems to be no really defined determination to push forward in any particular direction. A road to Castle Valley, in Emery County, a line extending south and paralleling the Utah Southern, another branching north through Cache Valley, and running over the same country as the Utah and Northern, with spurs both east and west, have been talked of and some promised, and may even be realized but there is no imminent probability of much being done in the immediate future, particularly in view of the unfavorable cast of the western railroad horizon as it appears at present. Mr. W. H. Bancroft is the superintendent for this division; E. H. Mudgett, passenger agent; Mr. S. W. Eccles has charge of the freight department, while J. C. McCadden controls the express department. . . .

The progress of the Rio Grande Western Railway, the "scenic line of the world," has noted the progress of the State; its enterprise has marked the enterprise of the people; its interests and those of the people it serves are recognized as identical. It operates in connection with the Rock Island, Burlington, Missouri Pacific and Santa Fe routes. It operates throughout the entire middle portion of this State, and is rapidly reaching out in all directions.

THE SAN PEDRO, LOS ANGELES AND SALT LAKE RAILROAD

In the autumn of 1900, William A. Clark a wealthy mining man from Montana, announced his intention to build a railroad from Salt Lake to Los Angeles. His original plan was to build straight through, connecting these points completely independent of the existing Union Pacific lines. The *San Pedro, Los Angeles and Salt Lake Railroad* was incorporated on March 21, 1901. Clark obtained control of the inactive Utah and California Railroad, which on March 4, 1901, purchased tax title to that portion of the grade lying between the end of the Utah and Pacific line at the Utah Nevada border, and Pioche and Caliente; and on April 19, 1901, turned the property over to the San Pedro, Los Angeles and Salt Lake. Believing that the old right of way of the *Oregon Short Line* in Nevada had been abandoned, the Clark interest lost no time in starting surveys southwest of Pioche and Caliente. It was at this point that the Union Pacific became alarmed at the threat to its monopoly and took steps to counteract. It exercised its option and took over the Utah and Pacific line south of Milford and asserted its claim to the right-of-way which the Clark line had appropriated. At this point a long litigation began in the Nevada courts, and in the meantime a railroad war was taking place on the construction sites. The *Oregon Short Line* laid tracks on its roadbed to Caliente and placed a barricade in a canyon southwest of Caliente through which the most feasible route lay. Finally an agreement was reached calling for a joint survey through the canyon, but this arrangement was not satisfactory. On July 7, 1903, an agreement was reached whereby the Harriman interests acquired one-half interest in the San Pedro, Los Angeles and Salt Lake, and this road took over all of the Oregon Short Line properties south of Sandy and west of Salt Lake City. The first train left Salt Lake for Tintic on July 8, 1903. The through line was completed January 1905, first passenger trains left Salt Lake City May 2, 1905. August 25, 1916, the name of the road was changed to the *Los Angeles and Salt Lake Railroad Company.* The Union Pacific obtained complete control of the line on April 27, 1921, and has operated it as part of the Union Pacific system since then. The branch to Cedar City was completed and regular service started on July 6, 1923.

Utah Since Statehood, Noble Warrum

THE UINTAH NARROW GAUGE RAILWAY

Twenty-two miles west of Grand Junction, Colorado, was the starting point of a very strange and unique railroad; one of the few narrow gauge lines in the west, and one of the most difficult to build and operate.

In order to develop the vast gilsonite deposits on the former Uncompahgre Indian Reservation in northeastern Uintah Basin, the General Asphalt Company, usually referred to as the Barber Asphalt Company, began a survey in the spring of 1903 for a narrow gauge railway line which would extend from a point just west of Crevasse Station on the Denver and Rio Grande Western Railroad that followed the Colorado River from Grand Junction westward into Utah.

By the fall of 1903 it was determined that a railroad could be successfully established and operated along the survey line, which took a tortuous course over the Book Cliff Mountains, stretching 54.64 miles from Mack, Colorado, to Dragon, Utah. The survey was followed by a wagon road which was soon transformed into a track bed. A corporation known as the Uintah Railway Company was formed on November 4, 1903, to construct and operate the fabulous railroad, then in the beginning stages of construction. Rails, some ties and the initial rolling stock was purchased from an abandoned line of the D. & R. G. Railroad Company at a reasonable price. The cost of this venture into Dragon, Utah, was $32,028 per mile, or approximately $1,750,000 over all.

One needed only to travel this railroad to understand why the cost of construction and operation was so high. There were sixty-five degree curves and long stretches of grade above five percent, running seven and one-half percent for five miles on the south side of Baxter Pass, and seventy-six degree curves in many places. In one area twenty-four miles of track were laid to travel a six-mile distance, and on the southern slope the railroad climbed 2,000 feet in elevation.

In the spring of 1903 William A. Banks of Vernal, Utah, with a crew of surveyors directed by Frank Baxter, drove the first stake on top of 8,437 foot Baxter Pass, named in honor of Frank Baxter. From there it was an abrupt fall of 4,000 feet to the arid wastelands below which stretched across the distance of many miles to the D. & R. G. W.'s line at Mack, Colorado. Some engineers argued that a tunnel through the mountains was the most practical route, but after much consideration it was decided to lay the track over the top of the mountains. With this decision made, dynamite, hand shovels, scrapers, axes, saws and pile drivers were immediately put to work. The principal tool of these crews was the horse-drawn scraper. Several bridge building crews, under the supervision of a Mr. Lawrence and Hyrum Sutton, were put to work constructing wooden bridges. Thirty-six bridges were required in a distance of about twenty-eight miles. For driving the piles, a one-half ton hammer was raised between guide rails to a height of twenty-three feet by a team of horses which drew a cable through a system of pulleys.

At the top of the guides the hammer was tripped, allowing it to fall freely on the pile. A sawmill was established on the north slope of Baxter Pass, which furnished all the timber needed for the construction of the railroad. Track crews were employed to install the ties and rails. The line was a three-foot gauge with rails weighing sixty pounds to the linear yard.

The track was completed in September of 1904, and in October the first engine, a Baldwin, pulled into Dragon, Utah, having traversed the entire line from Mack, Colorado. A mile long spur was run from Dragon, southwestward up Dragon Canyon to Dragon Camp and Black Dragon Mine. Gilsonite ore which had been stockpiled for so long was soon moving over the rail line to the main line of the D. & R. G. W. Prior to the completion of this line, the ore had to be hauled by four, six and eight horse teams, which was a slow, expensive operation.

To supply the water for construction, an earth fill dam was built, located five miles down the north slope from Baxter Pass. This lake was named Lake McAndrews after the Uintah Railway's superintendent, John McAndrews. A storage tank with spout for filling engine boilers was erected at a siding known as Wendella, just below the lake. South bound trains stopped there for water before beginning the ascent up the five percent grade to Baxter Pass. Culinary water was obtained along the way from springs at Columbine, which was also on the north slope near the summit. There was a flat green meadow at this place where picnics and celebrations were sometimes held.

The coal used to operate the offices and shops and to supply the ever consuming engines was obtained from the Gilson Asphaltum Company's own 480-acre tract of coal land in Garfield County, Colorado, called Carbonera. On the south side and at the foot of the Book Cliff Mountains, the maintenance shops and round houses were located at a place called Atchee, to honor the Ute Indian chief by that name. This was the major station between Mack, Colorado, and Dragon, Utah. Also there were sidings at Shale, Baxter, on top of the pass; Sewall, Wendella and at Urado, situated on the Utah Colorado line. Traveling from Dragon to Mack, then, the major sidings or stations were Urado, Sewall, Wendella, Columbine, Baxter, Shale, Atchee and then concluding with a rather straight twenty-eight mile stretch into Mack.

For the comfort of their patrons, the Uintah Railway Company constructed twenty-room hotels at Mack and Dragon. By the end of 1905 wagon roads had been built to Vernal and Fort Duchesne, Utah, from Dragon. Over these roads freight and stage lines were operated which made connections with the Dragon railhead on routine schedules. Also a mail and parcel post contract was secured for Vernal, and most towns on the former Uintah Indian Reservation. Many strange and interesting items were shipped by parcel post over this railroad, since in effect it was a subsidized mode of shipment.

Thirty thousand pounds of cement came to Vernal, Utah, by parcel post in 1914. Thirty-four hundred pounds of copper ore were shipped out to the Garfield refinery, and twelve thousand eggs from the Acorn Mercantile in Vernal to Grand Junction, Colorado. But most amazing of all was the parcel post shipment of bricks into Vernal for the purpose of building the Bank of Vernal. Each brick was wrapped separately, which so tied up the mail service that the federal government had to enact laws against such abuses of the postal service.

In 1911 the company extended its railroad ten and one-half miles to the northwest where the new terminal town of Watson sprang up, and from which a railway spur was extended three miles southward to the Rainbow Mine, and westward one-half mile to China Wall Mine. The people of Vernal, to the north, were eager for the railroad to be built into their town, but to the present time, 1966, no line has yet been constructed.

To handle their brisk trade in 1912, the company operated eleven single expansion engines, twenty-seven flat cars, twenty-four coal cars, eighteen boxcars, ten stock cars. At the peak of operations the railroad owned six Shays, two Mallets, two big Baldwin-Mallets, two side rods, and two saddle tank engines, plus two passenger coaches, three sleepers, twelve livestock cars, thirty boxcars and sixty flat cars. Also there were five tank cars, two first class coaches and two sleeping cars. Three motor service cars which looked very much like overgrown automobiles on railroad wheels were added to the company's fleet in 1915. The number of cars changed very little over the years, ranging in capacity from fifteen to twenty-five tons. Flat cars capable of the heaviest loads, twenty ton or more, were only loaded with an average of ten tons because of the steep grades and sharp curves.

In 1926 the Uintah Railway acquired an engine which was capable of performing the work of three Shays. The new narrow gauge monster was a Mallet, especially built by the Baldwin Company. The Baldwin-Mallet was reputed to be the largest engine built for narrow gauge roads; therefore, the curves on the line had to be reduced to sixty-five degrees or less. These new locomotives were of the 2-6-6-2 type, and each had a tractive force of 42,100 pounds. Before the Baldwin-Mallet engine arrived, Shay engines pulled most of the freight, and a small Mallet toiled with a single passenger coach over the rugged Book Cliffs. The average number of loaded cars per train mile was five. Two or three empty cars were usually pulled, but the steep grades and sharp curves prohibited loading them. Even with a short freight train of seven cars and a sixty-ton pay load, two and sometimes three engines were used to make the tortuous pull up the ascending grade and to brake the load down the descending grade. Thousands of head of sheep and cattle were shipped by rail each year to and from Colorado and Utah. Prodders were employed to prevent the animals from crowding to the lower end of the cars and crushing one another to death. Hundreds of thousands of

tons of gilsonite were shipped out over this unique railroad as well as millions of tons of wool, freight of all kinds, express, parcel post and mail and thousands of passengers. Many of the oil drilling rigs at the Rangely, Colorado, oil fields were shipped in; also the eighty-ton mill and power plant for Vernal Milling and Light Company of Vernal, Utah.

It is little wonder that rates were high on this railroad. The company had expended about $1,750,000 in building and initiating operations on the railway and paralleling it with telephone and telegraph lines between Mack, Colorado, and Dragon, Utah, and another $50,000 for an extension of the system to Watson, Utah. In 1908 freight charges from Dragon, Utah, to New York City were $22.35 per ton, of which $10.00 was spent for the haul from Dragon to Mack. A one way passenger ticket for the trip between Mack and Dragon was $6.50. The passenger fare and freight charges from Mack to Vernal were $20.00 per ton for freight and $13.00 for a single passenger. Express charges were three and one-half cents per pound, or about $10.00 per ton. In 1907 the freight rates were reduced to $8.00 per ton for the American Asphalt Association, who had secured a hearing in Denver, Colorado, with the Interstate Commerce Commission. A similar demand for reduction of gilsonite freight charges was made by the Utah Gilsonite Company in 1924.

Each engine carried sand boxes with releasing controls in the cab. The engineer could release a small stream of sand just ahead of the drivers to provide traction when the tracks were made slippery by rain and snow. Some of the engineers were inexperienced and used all the sand before they arrived at the steepest grades, and runaway trains were not unusual between Baxter Pass and Atchee, or the pass and Wendella. Bridges were often washed out by the floods caused by heavy rain storms. In August 1909 a storm damaged the tracks at Davis, and traffic was held up for ten days. Several persons were killed over the period of years that the train was operated under these trying conditions, but considering it all there were very few accidental deaths. Landslides caused by rain and melting snow were very disruptive to freight and passenger service. One such slide cut off transportation service for nearly two months in June of 1929.

The greatest problem to the administrative officials which caused more accidents and required expensive maintenance was an unpredictable element of nature — snow. It fell deeply and almost daily on Baxter Pass during the months of December, January and February. It was not unusual for as many as one hundred men from Dragon, Mack and Atchee to be employed shoveling snow by hand on Baxter Pass after a slide, or a high wind which had drifted the snow to unbelievable heights, or just a heavy snow fall. In some of the cuts it was necessary for the men who were using hand scoops to relay the snow up to as many as three men to move it over the top and off the tracks. A snow plow was sometimes fastened to the front of an engine which was backed by two more engines, the

plow tilted so as to drive the snow to the canyon side and clear the track which lay outside the earth cuts. In January 1907 a snowstorm blocked the pass with twenty-five foot high drifts, stalling a passenger coach. Two engines were attached, but still the train remained snowbound on the tracks three more days. The passengers were Captain Cooley, manager of the rail company; train employees and two drummers from Provo, Utah, who all enjoyed the experience.

In spite of all its difficulties, the Uintah Railway Company was prosperous during its thirty-four years of service. It was said in 1929 that "this railroad has a reputation of being the best paying line for its length in the country," and in that year the net profit amounted to $33,000.

The development of hard surfaced highways into the Uintah Basin, and the Gilsonite Asphaltum Company's shift of operations from the Rainbow to the Bonanza Mines in 1935 spelled the doom of the colorful Uintah Railway Company. Business slowed in 1936, and the company petitioned for the right to withdraw from business in 1938. In 1939 the tracks were torn up, the towns of Watson and Dragon became ghost towns overnight, and the Uintah Railway Company, which had constructed the only railroad ever to enter the Uintah Basin, was dissolved. Today the track bed serves, during good weather, as a truck road from Bonanza to Mack. It is also followed generally by the gilsonite- slurry pipeline from Bonanza to the American Gilsonite's $16,000,000 refinery at Gilsonite, Colorado, near Grand Junction. Representatives of the Interstate Commerce Commission who visited the property in July 1924 pronounced it the most difficult operating proposition they had ever seen. So while the engineers proved it possible to build and operate a railroad over the Book Cliff Mountains, they never proved it could be easy.

—Oral W. Richins and Hilda S. Morgan, from *A History of the Gilsonite Industry*, a thesis written by Newell C. Remington

THE SALT LAKE AND MERCUR

The Salt Lake and Mercur was a broad gauge mining road built to run between Fairfield, Utah County, and the famous mining town of Mercur. It was one of the roads illustrating the difficulties of railway building in the mountainous districts of the West. The roadbed was almost twice as long as the airline distance between the terminal points, these being Fairfield in Utah County, and Mercur in Tooele County; the distance first mentioned being fourteen miles and the other nine miles. Necessarily the track was crooked and the general view spectacular.

The road owes its beginning and finish to Joseph G. Jacobs, a native of Ohio, who reached Utah in 1890. The line was commenced September 1, 1894, and finished February 20, 1895. It was one of the best paying roads in the country and one of the most altitudinous, its climb from the valley to the heights, being 1986 feet. It was

dismantled in 1914, after the abandonment of mining operations at Mercur.

Originally the line was intended to bring the ore from the Mercur area three miles south to the Manning Mill. The tracks were soon extended on down the canyon to Fairfield, connecting with the Union Pacific lines. This allowed passengers and equipment to travel by an all-rail route from Salt Lake City via Lehi and Fairfield. Much of the color of the 1890's in Mercur was connected with this one-car railroad. James W. Neil gives this account of a ride on the Salt Lake and Mercur:

> Mercur is reached from Salt Lake via the Union Pacific Railway with one change of cars at Lehi Junction, change again at Fairfield, where the Salt Lake and Mercur Railroad, with a little narrow gauge car on broad gauge track, meets the Union Pacific trains and conveys one to Mercur. This railroad is a wonder to the traveler; the trip over it is well worth the taking even if the mining camp at its western end were no attraction. . . . It is twelve miles long, and I heard an old railroad man say that he would wager big money that in four miles of it one could not find a straight rail! It crosses a divide 1,800 feet above the Fairfield station, reaching this point by a series of curves, loops, twists and turns which fairly make one dizzy, and discounts any of the scenery on the famed Marshall Pass on the D. & R. G. Railway or the Hagerman Pass of the Colorado Midland. The single car is taken over by a diminutive engine of the Shay type, and at every turn the passenger holds his breath for fear this little machine will actually jump over what, to all appearances, is the end of the track. The rails are not yet

laid into the town of Mercur proper, but a short drive of one-half mile in a hack fills the gap.

And Jessie Lee states:

Many times I have ridden on this curious route and three times while traveling home from Fairfield, one of the cars jumped the track, and the passengers had to wait until a stage came and picked them up. Once it was in the summer time and about ¾ mile from Fairfield, I remember gathering wild flowers while we walked along the track and enjoyed the experience immensely. Besides the Horse Shoe Bend there was another place where the train zigzagged up the mountain called "The Loop-the-Loop." The train crossed right over where it had been. To me it was a great engineering accomplishment.

When I was a little girl, Ringling Brothers decided to bring some of their circus to Mercur. We were all filled with joy because most of us children had never seen a circus. They put the elephants and camels on flat cars at Fairfield but the grade was too steep for the engine to pull them and they took the elephants and camels off (there were only three of each) but the smaller animals arrived by train. They tried to prod the elephants and camels along and make them walk the rest of the way, but the poor things got so tired they stopped at Manning and some of the Mercurites went down there to see them. We children enjoyed the monkeys and animals, and clowns and whatever could make it up the hill. Trapeze performers, snake charmers, etc. . . . Ringling Brothers went badly in debt on that occasion.

THE SALT LAKE CITY RAILROAD COMPANY

Utah's pioneer streetcar line was known as The Salt Lake City Railroad. The company which inaugurated this enterprise was organized on the 24th of January, 1872. A preliminary meeting of its projectors had been held on the 19th of that month at the law office of Williams and Young, where it was decided to effect the organization. There were present at this meeting Brigham Young, Jr., William B. Preston, Seymour B. Young, Moses Thatcher, John W. Young, John N. Pike, Le Grand Young, Parley L. Williams, William W. Riter, and Hamilton G. Park. To these gentlemen belongs the distinction of establishing our first street railroad. The capital stock subscribed was $180,000, ten percent of which was paid in at the preliminary meeting. A board of five directors was chosen; namely, John W. Young, Brigham Young, Jr., LeGrand Young, William W. Riter and John N. Pike. The directors chose as their president, John W. Young; as vice-president and treasurer, Brigham Young, Jr.; as secretary, William W. Riter. Subsequently John W. Young was elected general superintendent.

A right of way for the Salt Lake City Railroad was granted by the City Council on the 26th of April of the same year. The original franchise was for the construction and operation of a line from the Utah Central — now Union Pacific — depot, eastward along South Temple Street to the Fort Douglas military reservation, with such deviations and branches on adjoining streets as the demands of travel might require. The line, as built, was from the Utah Central depot eastward to the Valley House, where it left South Temple Street and ran south one block to the Continental Hotel; thence turning east to Main Street, thence south on Main to the Clift House, and thence east as far as the Benedict property in the Ninth Ward. By the time it had reached that point a branch line to the Warm Springs was in operation, and others followed in due season. The first one-and-a-half miles were reported by the superintendent as completed, in running order and open for traffic, on the 17th of July, six months after the inception of the enterprise.

On the 4th of January, 1876, the company obtained from the City Council its celebrated "blanket franchise," giving it the right-of-way along any street in Salt Lake City. It was this grant that ultimately brought the pioneer line into collision with its influential rival, the Salt Lake Rapid Transit Railway.

Mule power was originally employed by the pioneer line, and it continued to be used until August 17, 1889, when electricity was substituted. This change necessitated an entire re-equipment of the road; the building of power houses, the purchase of machinery, new rails, new cars, poles, wires, and in short all the varied paraphernalia requisite to the great improvement. The cost was immense, but the men and means were at hand to meet it.

The road was a paying investment from the start, though the dividends during the horse-power period, when the service was more or less scant — the arrival and departure of cars at certain points being something in the nature of "angels visits, few and far between" — were not heavy. After the adoption of electricity as the motive power, and the institution of a service first-class in every respect, the business increased wonderfully and justified the company in extending its lines and adding improvements from year to year. To these purposes, from the beginning, the profits of the Salt Lake City Railroad have been mainly applied.

—*History of Utah,* Whitney

THE SALT LAKE AND FORT DOUGLAS RAILROAD

Built in 1888, this railroad was actually little more than an extended street railway system. It was built along Eighth South Street in Salt Lake City and up onto the East Bench, where it branched, one line running to Fort Douglas and the other turning southward through Sugarhouse, where it was the only connection with the Salt Lake and Eastern being constructed at that time, and on southward to Mill Creek. It was opened June 1, 1888. From a story written by A. P. Cedarlof as told by G. Ephraim Cedarlof, and published in Volume 12 of *Heart Throbs of the West,* we quote:

It might be interesting to know that the old steam railroad that ran to Wagner's Brewery started from the present location of the Denver and Rio Grande depot from whence it ran south to Eighth South, then east to about Tenth East. Then it turned north, passing about halfway between Tenth and Eleventh East on Fourth South and continuing on to about South Temple Street. There it turned east to Fort Douglas. A branch ran to the quarry in Red Butte Canyon and another to Wagner's Brewery. The tracks ran right up through the amusement park and a spur then extended back into the brewery, which was located at the mouth of Emigration Canyon because, it was said, of a law restricting such enterprises in the city at that time. The brewery was started in 1864, and was said to be the first one west of the Mississippi, and for the first three years sold only to the soldiers at the fort. Before the Salt Lake and Fort Douglas Railroad was built to the brewery, transportation of beer and ingredients for making it was by team and wagon. The railroad was a big improvement in transportation, because the "reservation" road was rough, dusty and at times, very muddy. The old wagon road followed a route up Fifth South Street to a point above Mt. Olivet Cemetery pond, then across the reservation in a southeasterly direction to the brewery and the mouth of the canyon.

The brewery operated until 1912, and burned down on Christmas Day of that year. A resort which opened in the early '90's, continued operating until about 1903. The railroad ceased running due to the decline of the rock business caused by the advent of cement.

UTAH-IDAHO CENTRAL RAILROAD COMPANY

Electric railways were also extended southward and northward from Ogden. The northern route came as an outgrowth of the Ogden City electric street car line. In 1900 David Eccles and associates purchased this line and made preparations for operating a railway. A firm known as the Ogden Rapid Transit Company was incorporated with David Eccles as president; Thomas D. Dee, vice-president; and N. C. Flygare, general manager. New and larger cars were purchased. In 1906 the line was extended to the Sanatorium at the mouth of Ogden Canyon. The Ogden Rapid Transit Company consolidated with the Ogden and Northwestern Railway Company, the railway line which had previously been built to the Utah Hot Springs via North Ogden, and a line was also extended to Plain City via Harrisville. Under the new company, the railroad was extended from the Sanatorium to the Hermitage in Ogden Canyon in 1909, and finally completed to Huntsville in 1915.

The Ogden Rapid Transit Company consolidated with the Logan Rapid Transit Company under the name of the Ogden-Logan and Idaho Railroad Company, later changed to the Utah-Idaho Central Railroad Company. In 1915 the corporation constructed a railroad from Ogden to Preston, Idaho, via Logan. With the completion of this road and the Bamberger Electric Railway, built by Simon Bam-

berger between Salt Lake City and Ogden, the people of Weber County were very well supplied with the best modern means of transportation. An Ogden man, John Crosley, who was a motorman on a car borrowed from the Ogden system, was the first to operate an electric car on the Bamberger line. —*Beneath Ben Lomond's Peak*

THE SALTAIR ROAD

The Salt Lake and Los Angeles road made no practical headway in the direction of Los Angeles, having only been laid as far as Saltair, some thirteen miles straight west from Salt Lake City; but this was a choice stopping place, as many thousands of people made use of its facilities to travel to that resort. The road was begun on September 25, 1891, and finished in the fall of 1892.

The name of the railroad company was changed to Salt Lake and Los Angeles Railroad Company and later, Salt Lake, Garfield and Western. It was electrified early in 1917.

MR. ROCK

Jacob Nephi Rock, pioneer of 1860, who came to Utah with his parents in the J. D. Ross Company at the age of six, was a railroad veteran with varied experiences in railroading. He helped lay tracks, operated a locomotive for many years and conceived the idea for a safety brake which now is standard equipment on all railroad engines and cars. A Salt Lake City newspaper carried this story about him January 12, 1934:

> Engines still appeal. Veteran railroader recalls early day history. "No, sir, I just can't pass a locomotive without stopping to look 'er over." In that manner Jacob N. Rock, eighty, of this city, sums up his boyish enthusiasm about railroads and all their appurtenances. Rock has probably helped build more miles of railroad in Utah and operated locomotives over the same roads than any single living resident of the state. He started railroading at the age of eighteen years. His first job was with a surveying party in American Fork Canyon, hired to lay out a railroad for the Miller Mining Company. The first stake for the *Bingham Canyon and Camp Floyd Railroad,* which started at Midvale and ran via Bingham into Cedar Valley, was driven by Rock in September 1872. The road was later sold to the Denver and Rio Grande Western. Rock also helped construct the *Utah Southern Railroad,* and the *Pleasant Valley Railroad,* subsequently added to the Denver and Rio Grande Western properties.
>
> In 1893 Rock went with the original *Salt Lake and Ogden Railroad,* now the Bamberger Electric Railway. It had been completed between Salt Lake and Beck's Hot Springs by John Beck when the veteran railroader went to work as a fireman and engineer. Beck and the late Simon Bamberger were motivating forces which completed the road to Ogden. For eighteen years Rock piloted a locomotive on the line, even hauling the final load of materials used to electrify it. Then, unable to bring himself to the point of giving up a steam engine, Rock quit and started operating a stationary steam engine in the ice plant.

Gertrude Rock McFarlane, his daughter, wrote of him:

When Father was sixteen he left the farm and went to railroading. His mother gave him her last two dollars and he set out for the American Fork Railroad camp. This camp was made up of very rough men who gambled with cards. Every evening he played with the men, whose stakes were drinks, and he won for about a week, but one evening he was loser. To pay the debt, he was forced to use the two dollars his mother had given him, to pay for the drinks. He felt so sorry about it he made a resolution that he was through with that kind of business for life, and he was. From there he went to the Bingham Canyon line and then to the Pleasant Valley. After the Rio Grande acquired all of these railroads, he was then sent to Montana where he worked for some time. He bought a small farm at Bingham Junction, now Midvale, for his mother and the family, and after he paid for the property, he gave his mother the deeds.

The day Jacob returned from Montana, he married my mother, Louisa Eve Free, on December 24, 1881. Their first home was in Provo where Father was yard master mechanic for the Rio Grande while the road was under construction. The tracks were laid north from Provo, and south from Salt Lake City. When the tracks met, Father was the first engineer to drive a train from Provo to Salt Lake City. The train was composed of flat cars for hauling railroad ties, so Father took one of the kitchen chairs and with the help of a few planks and nails, he fastened it to the floor of the first car, and Mother rode on it, thus being the first woman to ever ride on a train from Provo to Salt Lake.

From 1883 to 1887 Father and Uncle Al worked in Colorado for a mining company and built a sawmill for themselves. After returning to Utah, Father began railroading again as an employee of the Utah Central and Union Pacific. . . . (End of quote.)

Jacob Nephi Rock was born at Waynesboro, Franklin County, Pennsylvania, October 8, 1854, son of Valentine and Harriet Smith Rock. He died in Salt Lake City, Utah, April 10, 1941.

RAILROADS OF 1884

The driving of the spike at Promontory had been but the beginning of a spider web of rails that would reach into the vast areas of wealth throughout the territory. From rich farming valleys to mountainous mining districts, steam locomotives soon wended their way on narrow or standard gauge tracks to carry the wealth to market. *The Gazetteer* of 1874 announced that nearly two hundred

and fifty miles of railroad had been built, and by 1884 Utah's railroad mileage totaled 1,143. Three companies now controlled the lines, as follows:

Denver & Rio Grande: Ogden to Grand Junction, 346 miles; Bingham Junction to Bingham, 16 miles; Pleasant Valley Junction to Coal Mine, 8 miles; Bingham Junction to Alta, 16 miles, total of 386 miles.

Union Pacific: Ogden to Wasatch (Union Pacific), 165 miles; Ogden to Franklin (Utah & Northern) 81 miles; Echo to Park City (Echo & Park City) 32 miles; Utah Eastern, 25 miles; Lehi Junction to Silver City, (S.L. & Western) 57 miles; Utah and Nevada 37 miles; total of 397 miles.

Utah Central: Ogden to Frisco, 280 miles; Nephi to Wales, 30 miles; Ogden to Dividing Line, 105 miles — total 415 miles.

UTAH RAILROADS AS OF 1914

Ballard and Thompson Railroad Company, 5 miles of main track, one mile, side track; Bingham and Garfield Railway Company, 19.76 main track miles, 22.32 side track miles; Bingham Central Railway Company, 3.41 main track miles; Castle Valley Railroad Company, 20.40 main track, 12.25 side track miles; Central Pacific Railroad Company, 273.09 main track miles, 59.30 side track; Denver and Rio Grande Western Railroad Company, 762.67 main track, 236.45 side track miles; Echo and Park City Railroad Company, 27.59 main track, 9.07 side track miles; Emigration Canyon Railroad Company, 13.50 main track miles, 0.50 side track; Eureka Hill Railway Company, 6.91 main track miles, 1.21 side track miles; Kenilworth and Helper Railway Company, 3.60 main track miles, 2.50 side track; Ogden Union Railway and Depot Company, 3.31 main track, 12.23 side track miles; Oregon Short Line Railroad Company, 242.94 main track miles, 144.47 side track; Salt Lake City Union Depot and Railroad Company, 4.38 main track miles; Salt Lake and Los Angeles Railway Company, 14.36 main track and 2.75 side track miles; Salt Lake and Ogden Railway Company, 58.10 main track miles; Salt Lake and Utah Railway Company, 23.60 main track and 0.45 side track miles; San Pedro, Los Angeles and Salt Lake Railroad Company, 483.60 main track miles, 109.92 side track miles; Southern Utah Railroad Company; Spring Canyon Branch, Denver and Rio Grande Western, 3.98 main track miles, 1.36 side track miles; St. John-Ophir Railroad Company, 9.00 main track miles; Tooele Valley Railroad Company, 6.27 main track miles, 1.00 side track miles; Uinta Railway Company, 17.70 main track and 1.02 side track miles; Union Pacific Railroad Company, 75.11 main track, 36.85 side track miles; Utah Railway Company, 22.70 main track and 1.30 side track miles; Western Pacific Railroad Company, 121.60 main and 12.28 side track miles.

Our Pioneer Heritage

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