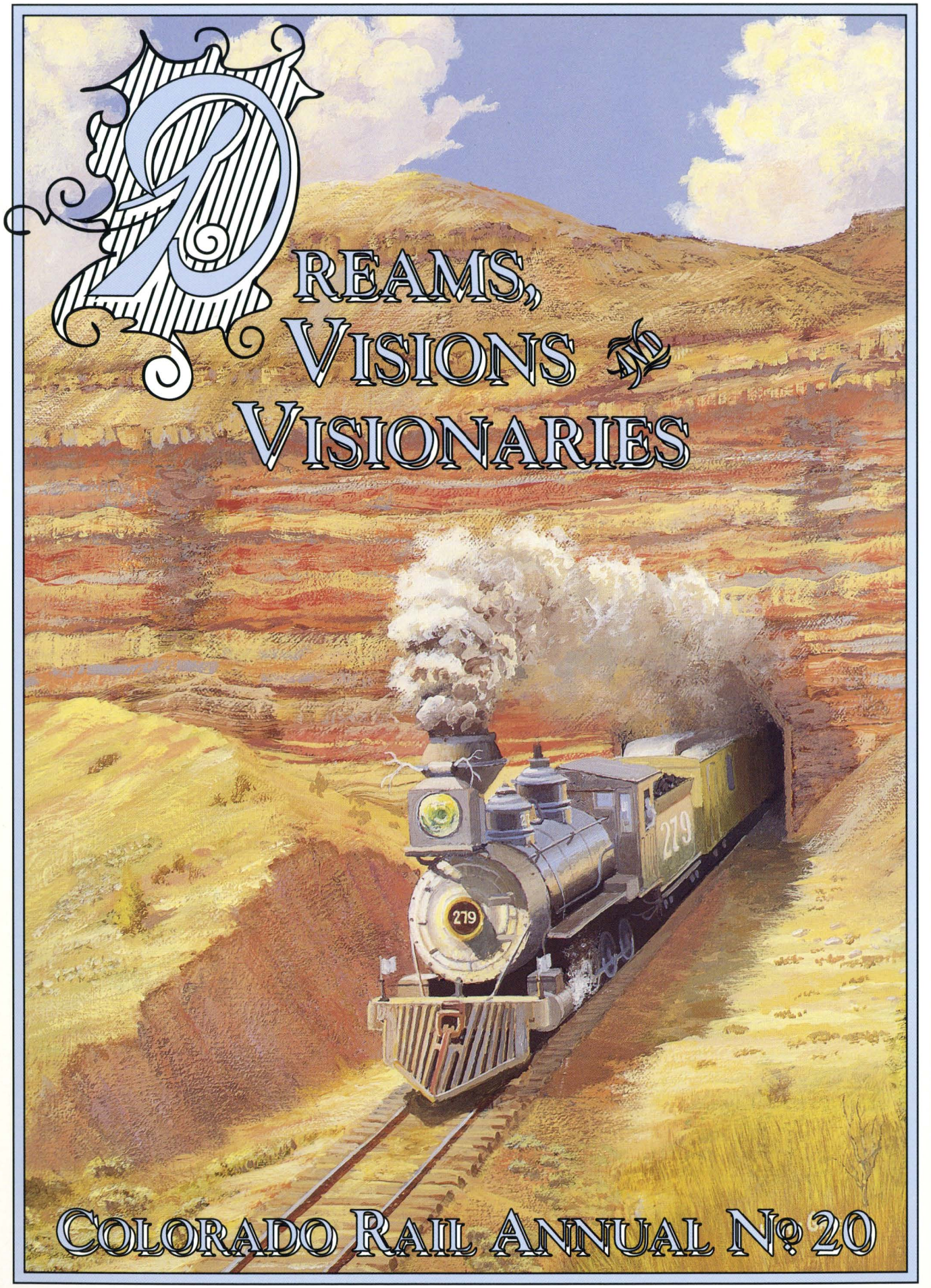

Dreams, Visions & Visionaries
279
279
Colorado Rail Annual № 20


279
279
JOHN GREEN

DREAMS, VISIONS & VISIONARIES

COLORADO RAIL ANNUAL NO. 20
A Journal of Railroad History in the Rocky Mountain West

Colorado Rail Annual No. 20

Editors

Charles Albi
R. C. Farewell
Kenton H. Forrest

Published and
distributed by

Colorado Railroad Museum
Box 10,
Golden, CO 80402

Colorado Railroad Historical Foundation
P.O. Box 10
Golden, Colo. 80402

The Colorado Railroad Museum was established in 1958 to gather and preserve a tangible historical record of Colorado's fascinating railroad era. The Museum's invaluable collection of records, artifacts and equipment was begun in 1949, and the accumulation of important material is still continuing. The Museum is now operated by the not-for-profit Colorado Railroad Historical Foundation, Inc., in which your support and participation are cordially invited.

Title Page Illustration

Artist John Green has depicted an eastbound Denver & Rio Grande Western Railway narrow gauge train emerging from the unusual three-segment tunnel along the Price River near Grassy Trail Creek, Utah. Locomotive No. 279 was one of several class 60 2-8-0s leased from the Denver & Rio Grande in Colorado. This tunnel was the only one between Denver and Salt Lake City when the 735-mile narrow gauge mainline was completed on March 30, 1883.

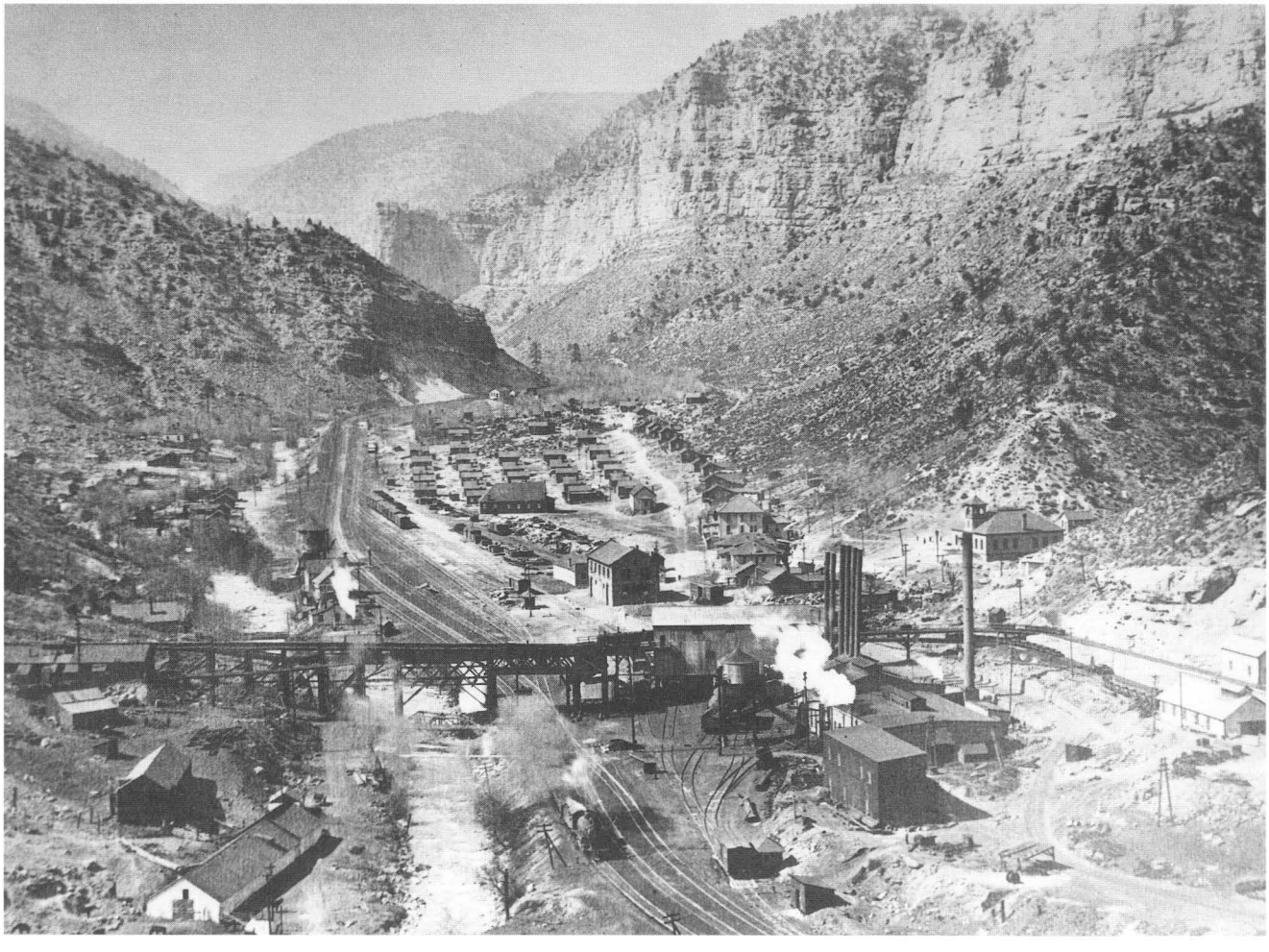
Colorado Rail Anual No. 20

ISBN 0-918654-20-3
Library of Congress Catalog Card No. 70-102682

Printed and bound in the United States of America by Johnson Printing Company, Boulder, Colorado. Layout and production by the editors.

PRINTED ON ACID FREE PAPER

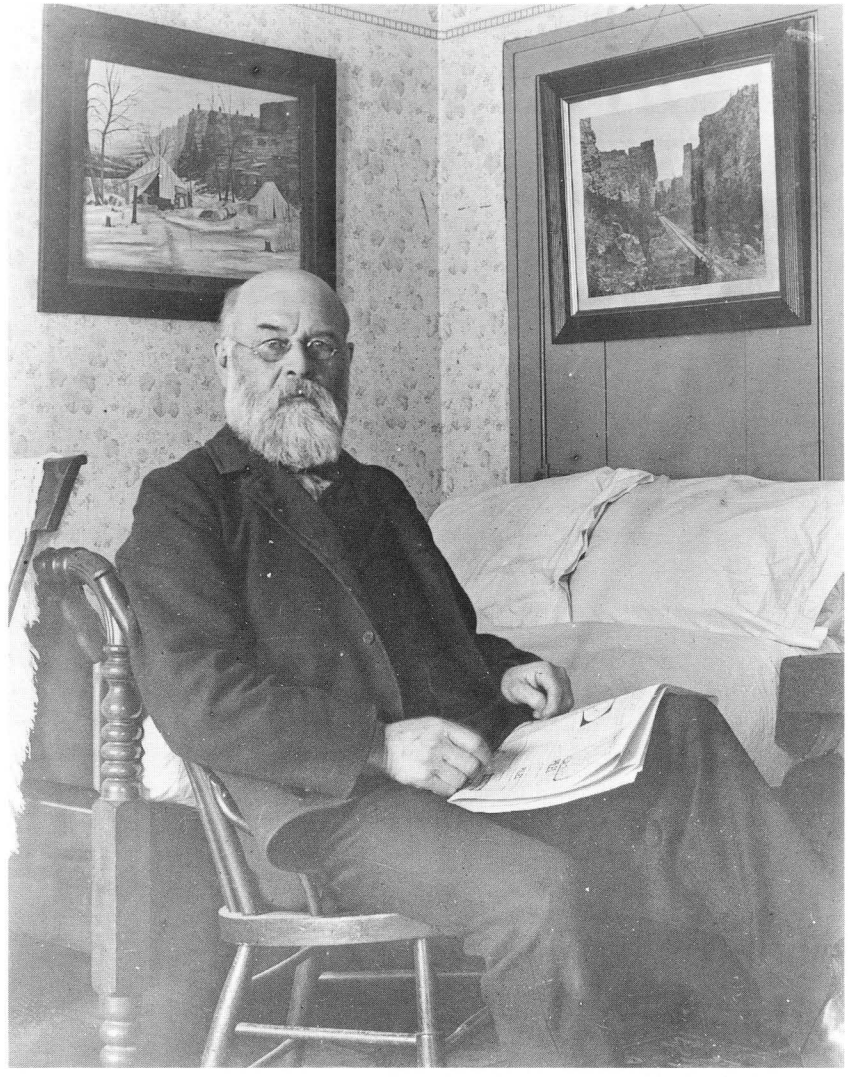
In the Mountains of Utah



by Jackson Thode
and
James L. Ozment

(opposite) The coal town of Castle Gate, Utah, was an unattractive but bustling place in this early 1900s view. Today, U.S. 6 skirts the valley to the left of the Denver & Rio Grande Western mainline, and only a few foundations remain to hint of the former activity at this site. (Mrs. Otto Herres collection, Utah State Historical Society)

On this page, Francis Hodgman is pictured in his Climax, Michigan, home on January 27, 1901. He had been locating engineer and chief of party surveying the original D&RGW Ry. route through Utah in 1881. Behind him are a framed watercolor he painted of his camp in Cedar Mesa Canyon and a William Henry Jackson view of the narrow gauge track through Castle Gate. (Marie and Deland Davis collection)



With the passage of an enabling act by the Congress of the United States in 1862 the stage for development of railroads into the largely unpopulated western part of the United States was set. The Hannibal & St. Joseph R.R. had reached St. Joseph, Missouri, in February 1859 and was the first line poised at the eastern edge of what had been described as "The Great American Desert."

In California, spurred by the gold rush beginning in 1848, considerable settlement had been made at the natural port of San Francisco and, via the Sacramento River, Sacramento. A small railroad there known as the Central Pacific became the instrument of construction of the "Pacific Railroad" on the west end of the continent. On the east end, the Union Pacific Railway was formed to build west from a small settlement across the Missouri River from Council Bluffs called Omaha. Supplies for Union Pacific construction came up the Missouri River from St. Joseph, and supplies for the Central Pacific came by ship from eastern ports around Cape Horn to San Francisco thence up the Sacramento River to the river's namesake town.

Well-chronicled in other volumes, the daring venture of the construction of over 1800 miles of railroad from Omaha, Nebraska Territory, to the west slope of the Sierra Nevada mountains was accomplished. A junction of the two railroads was completed May 10, 1869, with much ceremony at Promontory Summit, Utah Territory. The Central Pacific, entering Utah Territory west of the Great Salt Lake almost opposite Salt Lake City, built around the north end of the lake, finding that route somewhat less hostile than the barren salt flats and lack of fresh water sources for locomotives which discouraged construction around the south shore. The Union Pacific climbed a grade to the summit of the Wasatch Mountains from its crossing of the Green River, Wyoming Territory, after finding the Wasatch barrier at the headwaters of the Weber River. This route had been followed by thousands of Mormon immigrants and other settlers during the preceding two decades. The Union Pacific built down the valley of the Weber to Ogden, then turned northwestward along an arm of the Wasatch to a point near Brigham City. It then turned due west across the flood plain of the Bear River, climbing a stiff grade up the east slope of the Promontory Mountains to meet the Central Pacific at a low summit about 30 miles north of Great Salt Lake.

UTAH TERRITORY

The principal settlement in Utah Territory was Salt Lake City, which now found itself bypassed by the transcontinental railroad line passing through Ogden, 35 miles to the north. Wasting no time, Mormon church leader Brigham Young organized the Utah Central Railroad and built a connecting line from Ogden south to Salt Lake City. Recognizing the railroad as a means of tying his ever-expanding settlements in the region, Young encouraged his followers upon a course of railroad construction with a particular eye to settlements along what became known as the "Wasatch Front," the west slope of the range. Utilizing innovative irrigation methods, the Wasatch Front was capable of supporting a large population with farming, light industry and later, with the addition of railroads for transportation of raw materials, even a respectable amount of heavy industry.

The Mormons soon organized the Utah Southern Railroad and began building south from Salt Lake City through the settlements of Sandy and Draper, then over an alluvial gravel deposit remaining from prehistoric Lake Bonneville days, known as "Point Of The Mountain," to Pleasant Grove and Provo City. Construction proceeded south and west over another alluvial deposit to a point just south of present day Santaquin at an end of track called "York." Soon the line was extended to Juab, located south and across the valley from the Mormon settlement of Nephi.

Enter Colorado's Denver & Rio Grande Railway

Railroad building in the west had undergone a major change with the elimination of generous land grants offered as incentive to generate investment capital. These had sprouted such railroads as the Northern Pacific, Union Pacific, Central Pacific and Atchison Topeka & Santa Fe. Now, newly built lines were granted 100 feet on each side of the center line of track for a right of way, with additional parcels for station grounds where construction was done across public lands.

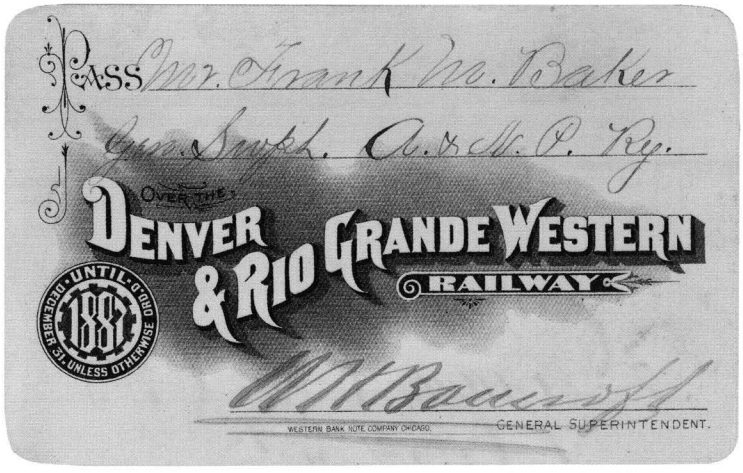
While completion of the Union Pacific/Central Pacific had inspired new railroad construction in Utah, it had the same effect over in Colorado, where Denver, the major settlement in that territory, found itself no closer to a railroad than Union Pacific's route through Cheyenne, 100 miles to the north. Unlike Salt Lake City, several railroads were building westward toward Denver. John Evans, a local leader in Colorado, arranged for construction of the Denver Pacific Railway south from Cheyenne to Denver, then eastward to connect with the westward building Kansas Pacific near present day Agate, Colorado.

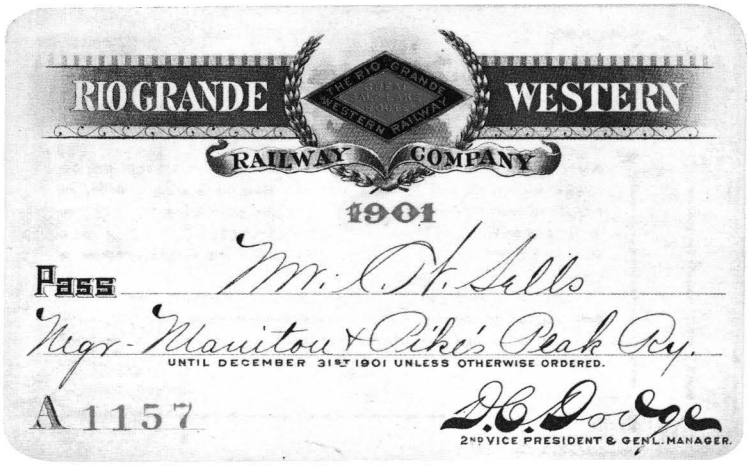
Also, the Atchison Topeka & Santa Fe was building westward through Kansas along the Santa Fe Trail. The Kansas Pacific had exhausted its resources in its construction toward Denver. One of its construction engineers, General William Jackson Palmer, teamed up with other KP officers to form the Denver & Rio Grande Railway. This was to be built narrow gauge (36 inches between the rails) as opposed to the generally accepted "standard" gauge of 56-1/2 inches. Palmer's original intent was to build south to El Paso, Texas, there connecting with a line in Mexico, in which he also had interest, which would build from Mexico City northward to Juarez, just across the Rio Grande River from El Paso. *(The story of yet another Palmer line south of the border, the Mexican National, is related elsewhere in this book.)* Palmer' initial incorporation of October 27, 1870 envisioned expansion on this plan with a branch to New Orleans and another into western Colorado.

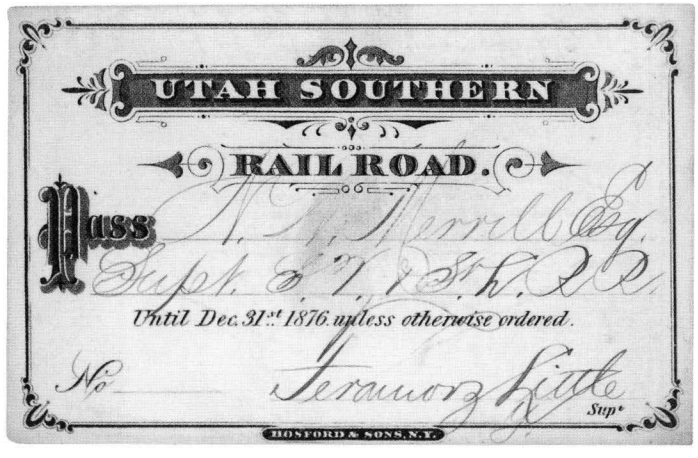
Palmer's grand plan was altered somewhat with the failure of his forces to occupy strategic points on Raton Pass in February 1878. They billeted at Trinidad, Colorado, one evening while the Santa Fe's forces travelled through the night to occupy those critical areas. By morning, when the Rio Grande's surveyors belatedly arrived on the scene, they were dismayed to find Raton Pass occupied by the Santa Fe. Undaunted by this, Palmer thrust one more time toward El Paso using his extension of line from Cuchara, four miles east of Walsenburg, westward through that city and over Veta Pass into the San Luis Valley, reaching the Rio Grande River of the railroad's corporate name at Alamosa. This route then turned south to the newly established town of Espanola, New Mexico Territory. With some influence from the Denver & Rio Grande, several citizens of Santa Fe organized a connecting narrow gauge line and built from there to Espanola. In time this line was incorporated into the D & RG system and remained the closest Palmer's railroad would come to El Paso for more than a century. Only a few probably gave it a second thought on the morning in October 1988 when the first Southern Pacific train entered El Paso under the ownership of Rio Grande Industries, direct descendent of Palmer's original narrow gauge Denver & Rio Grande Railway. Surely the General would have been highly pleased.

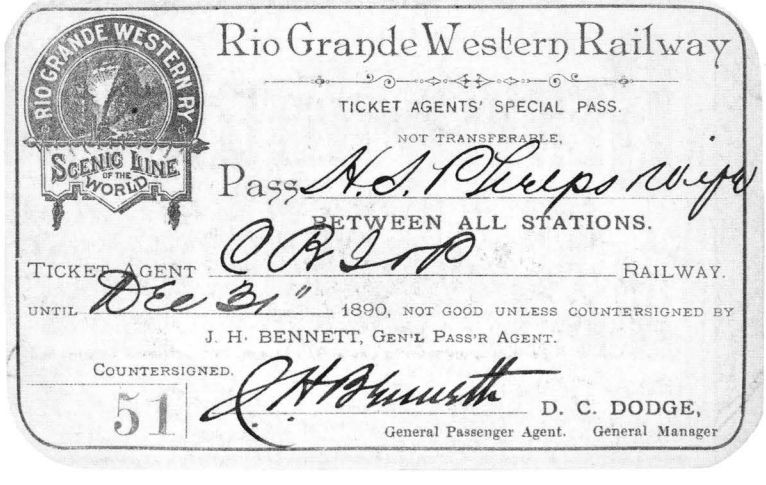
A further dispute with the Atchison Topeka & Santa Fe ensued over occupancy of the Royal Gorge of the Arkansas River, west of Pueblo. Again, Santa Fe forces outflanked the Rio Grande in the field, but in the courts it was another matter, and General Palmer's narrow gauge ended up in possession of this vital route to the west. The 1880 "Treaty of Boston" was entered into with the Santa Fe in which that road agreed not to build into "Rio Grande Territory" and the Rio Grande agreed not to invade that which was deemed to be the province of the Santa Fe. The treaty was broken in 1887 when the Santa Fe built a competing parallel line from Pueblo to Denver, Colorado, but that is a story for another time.

This 1883 map from the Travelers' Official Guide *shows the newly completed Denver-Salt Lake City narrow gauge mainline and the surveyed but never completed route to Salina, Utah.(Museum collection)*

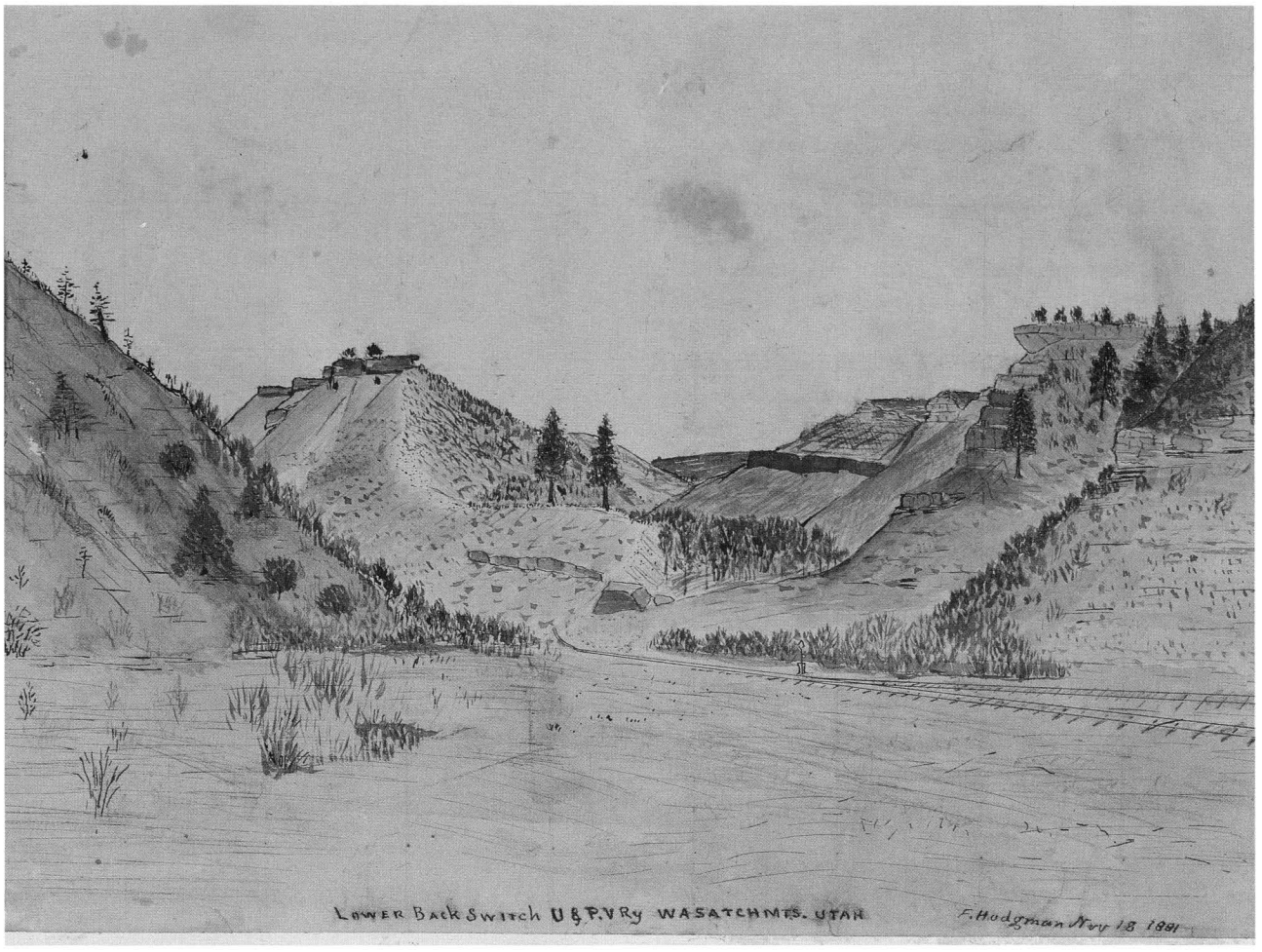








This collection of annual passes, one with a fine rendition of Castle Gate, depicts the evolution of railroads in south central Utah during the final quarter of the 1800s.(Museum collection)

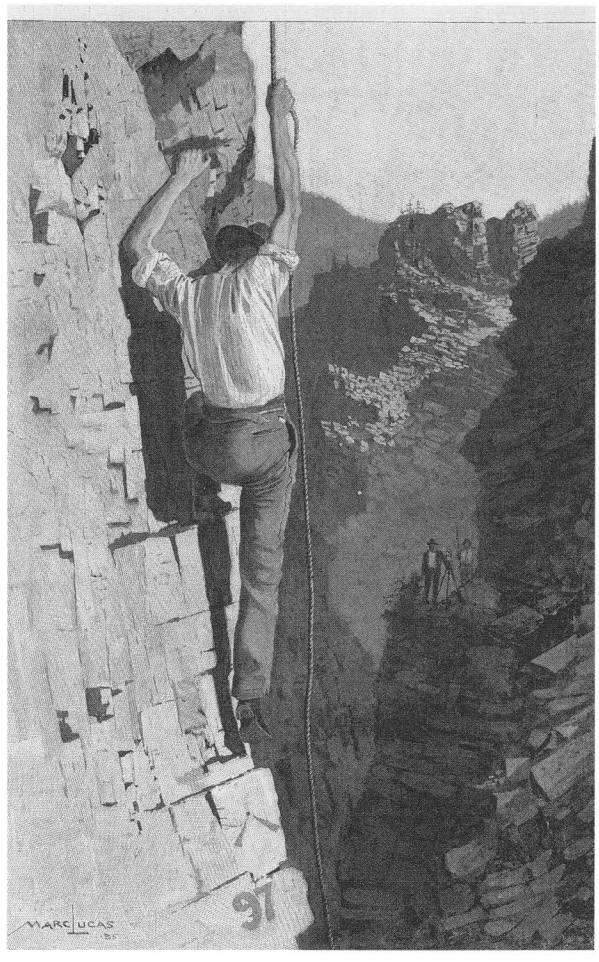


On his 41st birthday, November 18, 1881, Frank Hodgman found the time to sketch, and perhaps finish, a fine little watercolor of the "Lower Back Switch" on the Utah & Pleasant Valley. Through the kindness of Flora Hodgman Temple of Detroit, a granddaughter of Mr. Hodgman, the framed original is now in the possession of Editor Thode. Thirty years later the postcard below of a short D&RG freight climbing upgrade through Castle Gate was being sold to train passengers.(Museum collection)

The 1880s Picture

By 1880, then, the railroad picture in the west was dominated only by the "Pacific Railroad" built across the central corridor with a line south from Ogden to Juab, Utah Territory. The Santa Fe had built south of the Denver & Rio Grande and was now rapidly pushing its own line toward El Paso and a connection with the Southern Pacific. The latter had built eastward from California across the southern portion of Arizona from Yuma through Tucson then eastward toward El Paso looking toward a connection with the Texas & Pacific, which was building westward across Texas. Out in Nevada, a boom was on with ever increasing mineral deposit discoveries awaiting the arrival of a railhead to make the mining profitable. The vast area bordered by the Rocky Mountains to the east, the Sierra Nevada to the west, the Union Pacific/ Central Pacific to the north and the Southern Pacific to the south became ripe for development. Only a few penetrations southward had been made into this area.

Having personally reconnoitered much of the above described territory during their tenure with the Kansas Pacific, General Palmer and his associates now turned their attention west of the Continental Divide. With completion of the Denver & Rio Grande narrow gauge line up the Arkansas River from Pueblo to Leadville, Colorado in 1880, Palmer began construction westward. Salida, 215 miles from Denver via Pueblo, was selected as the point from which to head across the second great barrier of Rocky Mountain ramparts, having circumvented the Front Range by building south to Pueblo and up through the Royal Gorge. Marshall Pass, 10,856 feet high on the south slope of Mount Ouray, was to be the point of crossing of the Continental Divide and construction toward the pass began from Salida in June 1880.



In the latter part of the 19th Century, the adventures of railroad surveyors in the Rocky Mountain West were fodder for popular magazines, as this stirring scene from an 1895 issue of Harper's Weekly *attests.(Museum collection)*

Origins of Utah's Denver & Rio Grande Western Railway*

A partner in the Denver & Rio Grande enterprise, Dr. William A. Bell, close associate to the general and a participant in some of the earlier Kansas Pacific route surveys, went to Salt Lake City. There organizing the Sevier Valley Railway, he filed the articles of incorporation on December 7, 1880. The Sevier Valley was melded into the newly formed Denver & Rio Grande Western Railway on July 21, 1881. Micajah T. Burgess was appointed Chief Engineer of the "Western." To him fell the task of organizing survey parties and a construction force to implement the development of rail lines outlined in the incorporation. The requirements were vastly in excess of qualified surveyors then available in Utah. Indeed, while Burgess was organizing his operation, the Union Pacific, which had by now gained control of both the Utah Central and the Utah Southern, had organized the Utah Southern Extension Railroad to build south from Juab toward Delta and Milford, Utah and into Nevada to the mining areas then developing well south of the central corridor in such places as Eureka and Pioche. In addition, Union Pacific surveyors were charged with locating and occupying routes along this trunk line before any competing railroad could be organized to do so. It was into this area that the Denver & Rio Grande Western also aimed to build, intending ultimately to reach the developing seaport of Los Angeles. As it turned out, Los Angeles was not directly connected with Utah by rail until the San Pedro Los Angeles & Salt Lake Railroad was completed in 1905 to connect with what had been the Utah Southern

*This original Denver & Rio Grande Western *Railway*, which became the Rio Grande Western in 1889, is not to be confused with the later Denver & Rio Grande Western *Railroad* incorporated in 1921.

Extension. This line eventually became a part of the present Union Pacific system.

The incorporation of the Denver & Rio Grande Western Railway provided for construction of the following segments:

Division No. 1:
Salt Lake City to Park City and Coalville
Division No. 2:
Salt Lake City to Provo
Division No. 3:
Utah & Pleasant Valley Railway from Provo to Pleasant Valley coal mines
Division No. 4:
Clear Creek Station to Castle Valley Junction (near Price)
Division No. 5:
Castle Valley Junction to Green River
Division No. 6:
Green River to the Colorado border
Division No. 7:
Salina to Castle Valley Junction
Division No. 8:
Salina southward along Sevier River
Division No. 9:
Mouth of Clear Creek on Sevier River, southwest to Desert Springs Pass
Division No. 10:
Springville via Tintic Valley to Sevier River, with branch toward Deep Creek Pass
Division No. 11:
Salt Lake City via E. T. City, to Deep Creek Pass and Nevada border

Although line location and various amounts of construction were done on each of the divisions, the scope of this writing is intended to cover only those portions of line on which Frank Hodgman worked, as presented in the narration that follows. Therefore, attention is focused only on the work done on Divisions 3, 4, and 5.

East of the Wasatch

Division No. 5: Price (Castle Valley Junction)
to Green River, Utah

Careful study of the map included in this work will help with an understanding of what actually took place during the construction of the narrow gauge Denver & Rio Grande Western Railway between Price and Green River.

During the year 1881 the Denver & Rio Grande constructed its line in Colorado from Salida via Gunnison and Montrose into Grand Junction and on west to the Utah/Colorado state line during the closing days of the year. That portion of line from Grand Junction westward to the border was done by the D&RG on the behalf of the Utah company, the Denver & Rio Grande *Western* Railway. During 1881, surveyors laid out the line between the state line and Green River. The few surviving records and evidence in the field indicate that this was done in a rather straightforward manner, with few complications.

That portion west of Green River was another matter. There were two practical railroad routes available over the Wasatch for railroad construction west from Grand Junction, Colorado. One was over Soldier Pass; the other over Salina Pass, some 50 miles to the south. Because of recently discovered vast coal deposits on the east side of the Wasatch between these two passes, the Union Pacific had fielded survey parties and construction outfits into the lower western reaches of the defiles for the purposes of occupying the passes in the name of the UP.

A veteran of being outflanked by competing forces in occupying passes, General Palmer, with the lessons of Raton Pass and the Royal Gorge no doubt stamped indelibly in his mind, fielded forces into these same Utah canyons to occupy the slopes in the name of the Denver & Rio Grande Western Railway. One of the prized surveying artifacts of D&RGW Ry. history is the original field book of the survey party laying out the line between Salina and the summit of Salina Pass. However, no mention is made in the field book about the passing of Hodgman's party or the conflict with the Utah Southern (Union Pacific) forces on the west slope of the pass.

Perhaps the least known portion of the Denver & Rio Grande Western Railroad is that segment of line between Green River and Price, Utah. Until the advent of modern paved highways, it was possibly the hardest to get to. The climate is moderate only for a short time in the fall of the year. The desert scenery is regarded, at least by some, as beautiful and spectacular. The broad arid expanse, with a backdrop of the Book Cliffs on the north and the San Rafael Swell and Cedar Mountain on the south, is not so appealing to those who prefer vertical mountains, sharp curves, steep grades and helper engines.

The annals of early Denver & Rio Grande Western Railway construction and operation in this area are limited to only a few surviving records, though others are occasionally discovered as time goes by. The *Construction and Filing Map Records* of the Rio Grande Railroad as well as Denver & Rio Grande Western Railway's 1881 Chief Engineer's Report of Micajah T. Burgess, comprise practically the sole record of this activity. Copies of the original maps were filed in the office of the Bureau of Land Management in Salt Lake City, though now the BLM cannot locate those maps. Then, there is the account of the activities of Frank Hodgman, described in delightful detail in the account that follows.

Surveys and Construction West of Green River, Utah

While the alignment preferred by the early D&RGW Ry. surveyors between Grand Junction, and Green River seems to have been arrived at and constructed without much controversy, the lines west of Green River were not so obvious. The basic decision to be made early in 1881 was selection of one of three routes to the west of Green River:

1) The southernmost route would take the line up Saleratus, Cottonwood and Tidwell draws over a divide at the east base of Cedar Mountain, then around its south side across the Buckhorn Flat to a proposed junction with a line run south from Price, to be called Castle Valley Junction. From there the line would be produced southwestward through Castle Valley to the east foot of Salina Pass, thence over Salina Pass to Salina, Utah and westward toward the mining camps of Nevada. The line south from Price could be produced westward over Soldier Summit into the Utah Valley to Provo and Salt Lake City.

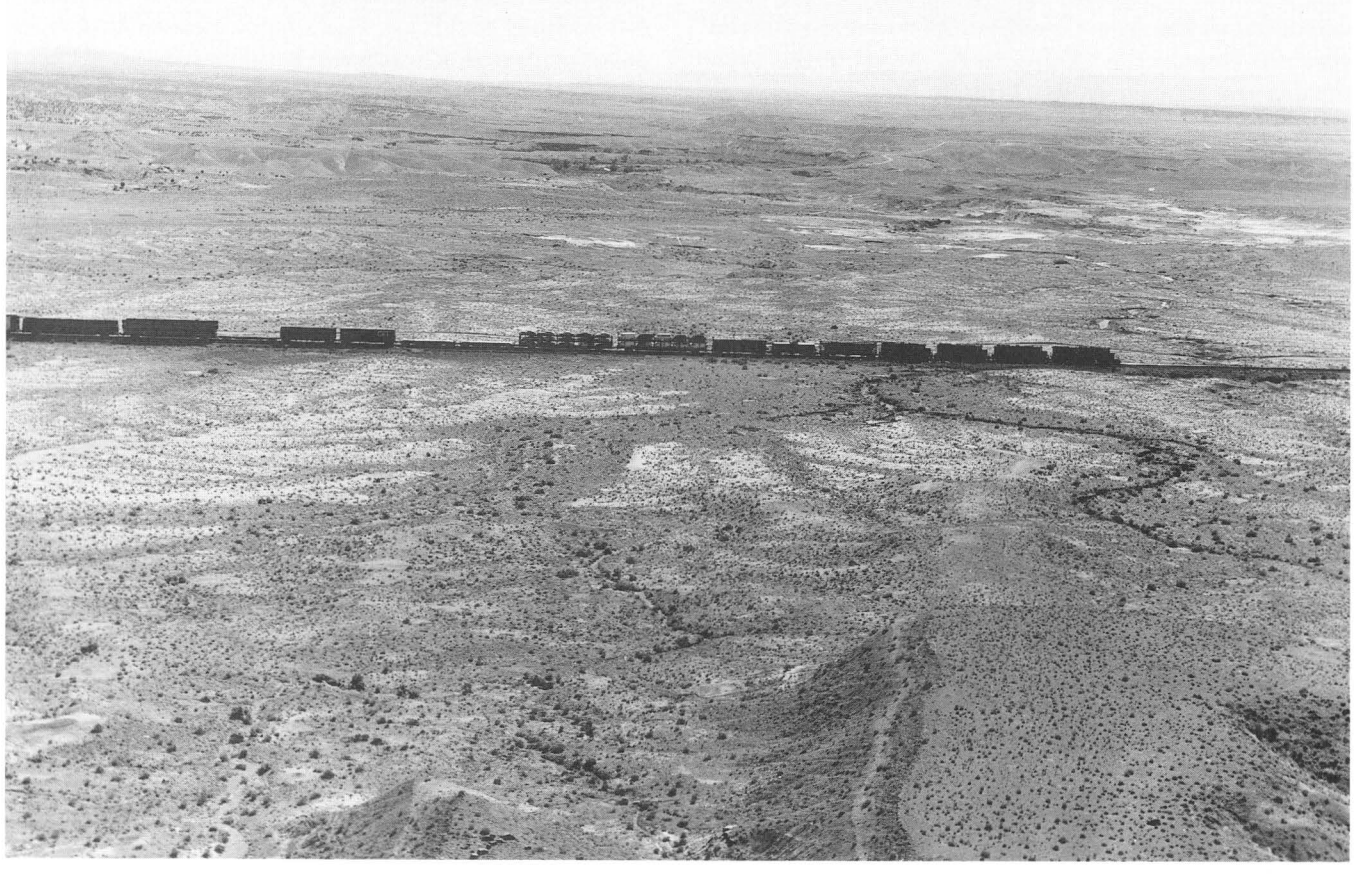
2) The major alternative to this route, a northernmost alignment, would take the line north from Green River up the river to its junction of the Price River, following that stream through a great cleft in Beckwith Plateau to Grassy Trail Creek, up Grassy Trail Creek over a divide (via the site of today's Mounds siding), then back down into the Price River drainage and on into Price. This alignment would join the southernmost alignment at a location near what became known as Dead Horse Crossing.

3) Two versions of the northern route were possible. First, rather than fight the curvature and canyon construction along the Green and Price rivers to the eventual site of Lower Crossing (later named Woodside) an easier alignment was possible over a divide around the southern and western base of Beckwith Plateau at the future site of Cliff (later Vista) siding, then down to the Price River. Second, at the junction of Grassy Trail Creek and the Price River, the option of construction on up the Price to Dead Horse Crossing needed to be weighed against the option of building up Grassy Trail Creek via Mounds, then west to the Price River at the later site of Wellington. The early engineers, including Frank Hodgman, preferred this alignment for construction of the original narrow gauge line.

Now let us turn to the practical aspects of the engineering requirements necessary to accomplish some of the proposals just discussed, along with a few of the personalities who were involved.

The following transcript is a verbatim copy of a series of newspaper columns written and submitted by Francis

The vast emptyness of the Utah desert is apparent as a westbound freight rolls toward Price and Helper. The view is just west of Mounds on July 13, 1978, looking south toward the original unfinished grading of 1881, miles away over the ridge in the far background. (J.L. Ozment photo)



DENVER AND OGDEN LINE.

Mixed.	Pacific Exs.	Mls	*July* 25, 1883.	Mls	Atlantic Exs	Mixed.
*8 30 P.M.	*7 50 P.M.	0	lve.....**Denver**.....arr.	771	9 00 P.M.	6 00A.M.
8 48 "	8 02 "	2	.....Burnham.....	769	8 48 "	5 48 "
8 57 "	8 08 "	4	.....N. O. Crossing.....	767	8 43 "	5 40 "
... ..	... ..	8	.....Petersburg.....	763	0 ..	... ..
... ..	... ..	11	.....Littleton.....	761	0 ..	5 05 "
... ..	... ..	17	.....Acequia.....	754	0 ..	... ..
... ..	... ..	25	.....Sedalia.....	746	0 ..	... ..
11 32 P.M.	9 18 "	33	.....Castle Rock.....	738	7 35 "	3 08 "
... ..	... ..	43	.....Larkspur.....	728	0 ..	2 14 "
... ..	... ..	47	.....Greenland.....	724	0 ..	... ..
1 27A.M.	10 12 "	52	.....Loch Katrine.....	719	6 50 "	1 27A.M.
3 50 "	11 02 P.M.	75	..**Colorado Springs**..	696	5 55 "	11 02 P.M.
... ..	... ..	94	.....Little Buttes	677	0 ..	8 50 "
‖8 10 "	12 25N'HT	120	arr.**South Pueblo**.lve.	651	4 25 "	‖6 30 "
8 40 "	12 40N'HT	120	lve.**South Pueblo**.arr.	651	4 15 "	4 15 "
10 33 "	... ..	143	.....Thompson.....	628	... ..	2 22 "
... ..	... ..	....	.....**Labran**.....	620	... ..	... ..
11 20A.M.	... ..	152	.....Florence.....	619	... ..	1 30 P.M.
12 25NO'N	2 10A.M.	161	.....**Canon City**.....	610	2 50 "	12 25NO'N
12 35NO'N	2 17 "	162	..Grape Creek Junction..	609	2 44 P.M.	12 10NO'N
... ..	... ..	171	.....Parkdale.....	600	... ..	11 25A.M.
2 47 P.M.	... ..	186	.....Texas Creek.....	585	... ..	9 45 "
3 25 "	... ..	193	.....Cotopaxi.....	578	... ..	9 07 "
4 22 "	... ..	204	.....Howard's.....	567	... ..	8 05 "
5 20 "	4 35 "	217	arr.....**Salida**.....lve.	555	12 15NO'N	7 00 "
6 20 "	4 40 "	217	lve.....**Salida**.....arr.	555	‖11 55A.M.	5 30 "
6 45 "	4 52 "	221	.....**Poncha**.....	550	11 42 "	5 00 "
7 23 "	5 22 "	228	....**Mears**.....	544	11 15 "	4 10 "
7 42 "	5 32 "	230	.....Shirley.....	542	11 05 "	... ..
8 38 "	5 59 "	235	.....Gray's Siding.	536	10 37 "	3 12 "
9 40 "	6 31 "	242	.....Marshall Pass.....	529	10 05 "	2 23 "
10 08 "	... ..	245	.....Hillesden	526	... ..	1 55 "
10 37 "	7 00 "	248	.....Mill Switch.....	523	9 38 "	1 27 "
10 52 "	7 09 "	250	.....Chester.....	522	9 30 "	1 12A.M.
11 25 P.M.	... ..	254	.....Buxton.....	517	... ..	12 35N'HT
12 05N'HT	‖8 10 "	259	....**Sargents**.....	512	8 50 "	12 05N'HT
1 00A.M.	8 27 "	267	.....Crooks.....	504	8 27 "	... ..
1 20 "	8 36 "	271	.....Doyle.....	501	8 17 "	10 55 P.M.
2 00 "	8 55 "	278	.....Parlins.....	493	7 55 "	10 15 "
3 30 "	9 25 "	290	.....**Gunnison**	481	7 30 "	9 10 "
... ..	9 53 "	302	....Kezar.....	469	7 05 "	7 45 "
5 26 "	... ..	309	.....Cebolla.....	462	... ..	... ..
‖6 30 "	10 30 "	316	.....**Sapinero**....	455	6 30 "	6 30 "
... ..	10 48 "	322	..... Currecanti.	448	6 12 "	... ..
... ..	11 07 "	329	.....Crystal Creek..	442	5 55 "	5 20 "
8 00 "	‖11 12 "	331	arr.....Cimarron.....lve.	440	5 50 "	5 10 "
8 15 "	11 32A.M.	331	lve.....Cimarron.....arr.	440	‖5 30 "	‖4 55 "
8 49 "	12 01NO'N	336	..... .Cerro.....	435	5 05 "	4 18 "
9 35 "	12 30 "	343	.....Cedar Creek.....	428	4 35 "	3 40 "
10 23A.M.	12 53NO'N	353	.....**Montrose**.....	418	4 07 "	2 40 P.M.
... ..	1 18 P.M.	364	.....Colorow	407	3 43 "	... ..
12 10NO'N	1 40 "	374	.....Delta.....	396	3 18 "	12 10NO'N
... ..	2 10 "	386	.....Escalanti.....	384	2 47 "	10 55A.M.
1 40 P.M.	2 25 "	392	.....Dominguez... ...	379	2 30 "	10 20 "
2 17 "	2 43 "	399	.....Bridgeport.....	372	2 13 "	9 36 "
... ..	3 10 "	409	..... Kahnah.....	362	1 45 "	... ..
3 30 "	3 20 "	412	.....Whitewater.....	359	1 35 "	8 15 "
6 00 "	3 55 "	425	...**Grand Junction**..	347	1 00A.M.	7 00 "
6 35 "	4 11 "	433	.....Roan.....	338	12 39N'HT	5 10 "
7 08 "	4 26 "	439	.....Hereford.....	332	12 25 "	4 35 "
7 46 "	4 43 "	446	.....Crevasse.....	325	12 09N'HT	4 00 "
8 16 "	4 56 "	452	.....Shale.....	322	11 54P.M.	3 27 "
8 42 "	5 08 "	457	.....Excelsior.....	314	11 42 "	3 00 "
9 18 "	5 23 "	463	.....Acheron.....	307	11 28 "	2 20 "
10 13 "	5 46 "	474	.....West Water.....	298	11 05 "	1 25A.M.
10 52 "	6 09 "	479	.....Cottonwood.....	292	10 52 "	12 55N'HT
11 55 P.M.	6 25 "	490	....Cisco.....	281	10 28 "	11 55 P.M.
1 15A.M.	7 01 "	507	.....Sagers.....	264	9 51 "	10 18 "
2 03 "	7 23 "	515	.....Thompson's.....	256	9 33 "	9 33 "
2 33 "	7 37 "	521	.....Crescent.....	250	9 17 "	8 34 "
3 13 "	7 54 "	529	.....Little Grand	243	9 00 "	7 54 "
3 53 "	8 11 "	536	.....Solitude.....	235	8 43 "	7 12 "
6 00 "	8 35 "	545	.....Green River... ..	227	8 22 "	6 30 "
7 10 "	9 05 "	558	.....Desert.....	213	7 47 "	5 05 "
8 15 "	9 35 "	570	arr. ⟨ **LowerPrice** ⟩ lve.	201	7 18 "	4 00 "
8 35 "	10 00 "	570	lve. ⟨ **..Crossing..** ⟩ arr.	201	6 58 "	3 35 P.M.
9 30 "	10 29 "	581	.....Farnham..	190	6 32 "	12 40NO'N
11 10A.M.	11 16 "	599	.....Sunny Side.....	172	5 49 "	11 10A.M.
12 10NO'N	11 44 P.M.	610	.....Castle Valley.....	161	5 23 "	10 10 "
1 25 P.M.	12 24N'HT	622	.....Castle Gate.....	149	4 43 "	9 00 "
3 53 "	1 19A.M.	637	.**Pleasant Valley Junction.**	134	3 53 "	7 35 "
4 33 "	1 39 "	644	.....Soldier Summit.....	127	3 29 "	6 40 "
5 23 P.M.	2 18 "	651	.....Clear Creek.....	120	2 52 "	5 55A.M.
6 13	2 42 "	659	.....Mill Fork.....	112	2 29 "	4 55
7 13 Acc.	3 17 "	669	.....Thistle.....	102	1 54 "	3 55 Acc.
8 03 A.M.	3 50 "	680	.....Spanish Fork.....	91	1 24 "	3 00 P.M.
8 29 *7 25	4 03 "	684	.....Springville.....	87	1 11 P.M.	2 35 7 15
9 07 8 40	4 18 "	689	.....**Provo**.	82	12 58NO'N	2 05 7 00
9 50 3 01	4 40 "	699	.....Battle Creek.....	72	12 17 "	1 15 6 37
10 05 8 11	4 49 "	702	.....American Fork....	69	12 09 "	1 00 6 22
10 20 8 19	4 57 "	705	....Lehi.....	66	12 01NO'N	12 45 6 20
11 30 8 57	5 35 "	718	.....Draper.....	53	11 26A.M.	11 35 5 41
12 05 9 12	5 50 "	724	.**Bingham Junction**..	47	11 12 "	11 00 5 26
1 00 9 38	6 16 "	735	arr....**Salt Lake**... lve.	36	10 48 "	10 00 5 00
1 30 9 48	6 26 "	735	lve....**Salt Lake**....arr.	36	10 33 "	9 30 4 45
2 15 10 11	6 49 "	743	..... . Wood's Cross.....	27	10 11 "	8 45 4 20
2 50 10 27	7 05 "	750	.....Farmington.....	21	9 57 "	8 10 4 04
3 15 10 37	7 15 "	754	.....Kaysville.....	17	9 48 "	7 50 3 54
4 10 11 01	7 39 "	764	.....Hoper.....	7	9 25 "	6 50 3 30
4 45 11 17	7 55A.M.	771	arr.....**Ogden**.....lve.	0	*9 10A.M.	*6 13 3 15
A.M. A.M.						P. M. P. M.

DENVER AND SILVERTON LINE.

Mail.	Express.	Mls	*October* 21, 1883.	Mls	Express.	Pass'ge
			LEAVE] [ARRIVE			
*8 15A.M.	*7 50 P.M.	0	.....**Denver**.....	495	7 10A.M.	7 15 P.M.
8 30 "	8 02 "	2	.....Burnham..	493	6 56 "	7 02 "
8 35 "	8 08 "	4	.....N. O. Crossing.....	491	6 50 "	6 57 "
8 45 "	... ..	8	..... .Petersburg.....	487	6 38 "	6 47 "
8 50 "	... ..	10	.....Littleton.....	485	6 32 "	6 40 "
9 08 "	... ..	17	.....Acequia.....	478	6 17 "	6 22 "
9 27 "	... ..	25	.....Sedalia.....	470	6 02 "	6 05 "
9 33 "	... ..	29	.....Mill No. 2	466	... ..	5 55 "
9 49 "	9 18 "	33	.....Castle Rock.....	462	5 43 "	5 45 "
9 55 "	... ..	35	..... Douglas.....	460	5 38 "	5 39 "
10 05 "	... ..	39	.....Glade.....	456	... ..	5 31 "
10 20 "	... ..	43	.....Larkspur.....	452	5 21 "	5 20 "
10 33 "	... ..	47	.....Greenland.....	448	5 12 "	5 11 "
10 49 "	10 12 "	52	.....Loch Katrine.....	443	5 00 "	4 58 "
10 59 "	... ..	56	.....Monument.....	439	... ..	4 45 "
11 07 "	... ..	58	.....Borst's.....	437	... ..	4 37 "
11 16 "	... ..	62	..... Husted's.....	433	... ..	4 25 "
11 27 "	... ..	67	..... .Edgerton.	428	... ..	4 10 "
11 52A.M.	11 02 P.M.	75	..**Colorado Springs**..	420	3 55 "	3 45 "
12 09NO'N	... ..	84	.....Widefield.....	411	... ..	3 20 "
12 18 "	... ..	88	....Fountain	407	... ..	3 10 "
12 31 "	... ..	94	.....Little Buttes.....	401	3 08 "	2 56 "
12 42 "	... ..	99	....Wigwam	396	... ..	2 44 "
12 54NO'N	... ..	106	.....Pinon.....	389	... ..	2 32 "
1 07 P.M.	... ..	112	.....Cactus.....	383	... ..	2 19 "
... ..	... ..	117	.....Nada.....	378	... ..	... ..
‖1 25 "	12 25N'HT	120	arr.**South Pueblo**.lve.	375	2 10 "	2 00 "
2 00 "	12 50 "	120	lve.**South Pueblo**.arr.	375	1 40 "	‖1 00 P.M.
2 05 "	12 55N'HT	121	.....Bessemer.....	374	1 35 "	12 55NO'N
2 27 "	1 15A.M.	129	.....San Carlos.....	366	1 15A.M.	12 33 "
2 38 "	... ..	134	.....Greenhorn	361	... ..	12 20 "
2 58 "	1 50 "	141	.....Salt Creek.....	354	12 24N'HT	12 01NO'N
3 15 "	2 10 "	147	.....Graneros.....	348	12 15N'HT	11 45A.M.
3 47 "	2 45 "	157	.....Huerfano.....	338	11 37 P.M.	11 13 "
4 07 "	... ..	164	.....Apache.....	331	... ..	... ..
4 20 P.M.	3 20 "	170	arr ...**Cuchara**....lve.	325	11 00 "	*10 40A.M.
*1 55 P.M.	3 20 "	170	lve....**Cuchara**....arr.	325	11 00 "	1 05 P.M.
2 40 "	3 45 "	176	.....Walsen's.....	319	10 40 "	12 15NO'N
3 23 "	... ..	183	.....Wahatoya.....	312	... ..	11 35A.M.
4 20 "	4 35 "	191	.....La Veta.....	304	9 45 "	10 55 "
5 15 "	5 05 "	199	.....Ojo.....	296	9 05 "	10 10 "
... ..	... ..	202	.....Mule Shoe.....	293	... ..	... ..
6 25 "	6 05 "	206	.....Veta Pass.....	289	8 10 "	9 15 "
... ..	... ..	208	....Sangre de Cristo....	287	... ..	... ..
7 35 "	6 50 "	213	.....Placer.....	282	7 35 "	8 35 "
8 10 "	... ..	219	.....Trinchera.....	276	... ..	7 50 "
8 45 "	7 25 "	226	.....Fort Garland.....	269	6 48 "	7 25 "
9 40 "	... ..	238	....Baldy.....	257	... ..	6 10 "
10 25 "	... ..	247	.....Hay Siding.....	249	... ..	5 25 "
10 40 P.M.	8 25 "	250	arr....**Alamosa**....lve.	245	5 40 "	*5 10A.M.
*6 30A.M.	8 40 "	250	lve....**Alamosa**....arr.	245	‖5 20 "	5 55 P.M.
7 35 "	9 23 "	265	.....La Jara.....	230	4 48 "	4 50 "
8 50 "	10 10 "	279	.....**Antonito**.....	216	4 15 "	3 45 "
9 50 "	10 50 "	289	.....Lava.....	206	3 37 "	2 35 "
10 45 "	11 28 "	298	arr.... Big Horn....lve.	197	3 06 "	1 40 "
10 45 "	11 28 "	298	lve.....Big Horn....arr.	197	3 06 "	1 40 "
11 25A.M.	11 53A.M.	303	.....Sublette.....	192	2 45 "	1 00 P.M.
12 20NO'N	12 20NO'N	309	.....Toltec.....	186	2 19 "	12 20NO'N
1 25 P.M.	‖1 20 P.M.	317	.....Osier.....	178	‖1 40 "	11 15A.M.
1 55 "	1 38 "	321	.....Los Pinos.....	174	1 02 P.M.	10 45 "
3 00 "	2 15 "	329	.....Cumbres.....	166	12 25NO'N	9 45 "
3 20 "	2 29 "	331	.....Coxo.....	164	12 10NO'N	9 20 "
3 50 "	2 46 "	334	.....Siding No. 9.....	161	11 50A.M.	8 45 "
4 30 "	3 06 "	338	.....Lobato.....	157	11 27 "	8 10 "
5 10 "	3 24 "	343	arr. ....Chama.....lve.	152	11 05 "	7 35 "
6 00 "	3 29 "	343	lve.....Chama.....arr.	152	11 00 "	6 45 "
6 30 "	3 45 "	348	.....Willow Creek.....	147	10 45 "	6 15 "
7 00 "	4 00 "	352	.....Azotea.....	143	10 30 "	5 45 "
8 00 "	4 28 "	362	.....Monero	133	10 00 "	4 40 "
8 30 "	4 43 "	365	.....**Amargo**.....	130	9 40 "	4 10 "
... ..	5 01 "	372	.....Dulce.....	119	9 12 "	... ..
9 45 "	5 15 "	376	.....Navajo.....	179	8 55 "	3 00 "
10 45 "	6 43 "	385	.....Juanita.....	110	8 25 "	2 00 "
11 35 P.M	6 08 "	394	.....Carracas.....	101	7 57 "	1 10A.M.
12 25N'HT	‖6 35 "	402	arr.....Arboles ....lve.	93	7 30 "	12 25N'HT
12 25N'HT	6 55 "	402	lve.....Arboles.....arr.	93	‖7 10 "	12 25N'HT
... ..	... ..	405	.....Siding No. 22.....	90	... ..	... ..
... ..	7 20 "	409	.....Vallejo.....	86	6 45 "	11 36 P.M.
... ..	7 30 "	412	.....Solidad.....	83	6 36 "	... ..
... ..	... ..	415	....Serape.....	80	... ..	... ..
2 04A.M.	7 50 "	417	.....La Boca	78	6 19 "	10 48 "
2 44 "	8 13 "	424	... ...Ignacio.....	71	5 55 "	10 10 "
... ..	8 33 "	430	..... .Silla.....	65	5 36 "	... ..
... ..	... ..	433	.....Colina.....	62	... ..	... ..
3 52A.M.	8 53 "	436	.....Florida.....	59	5 15 "	8 53 "
4 45 "	9 21 "	444	.....Bocea.....	51	4 45 "	7 55 "
5 10 "	9 35 "	447	.....Carboneria.....	48	4 30 "	7 30 "
5 25 "	9 45 "	450	arr....**Durango**....lve.	45	4 20 "	7 15 "
7 30 "	9 55 "	450	lve....**Durango**....arr.	45	4 05 "	6 42 "
... ..	10 05 "	452	.....Animas City.....	43	3 55 "	... ..
8 07 "	10 20 "	457	.....Home Ranch	38	3 35 "	6 08 "
8 20 "	10 35 "	459	.....Trimble Springs.....	36	3 25 "	5 58 "
8 42 "	10 45 "	461	.....Hermosa	34	3 15 "	5 45 "
9 32 "	11 25 P.M	468	.....Rockwood	27	2 35 "	5 00 "
10 37 "	12 30N'HT	477	.....Cascade Siding.....	18	1 55A.M.	4 00 "
11 03 "	12 50N'HT	481	.....Needleton.....	14	12 50N'HT	3 38 "
11 50A.M.	1 30A.M.	489	.....Elk Park.....	6	12 05N'HT	3 00 "
12 30NO'N	2 00A.M.	495	.....**Silverton**.....	0	*1 30 P.M.	*2 30 "
			ARRIVE] [LEAVE			

○ To let off passengers from west of Salida.

The Green River-Soldier Summit portion of the Rio Grande timetable in the November 1883 Travelers' Official Guide *is highlighted above. (Museum collection)*

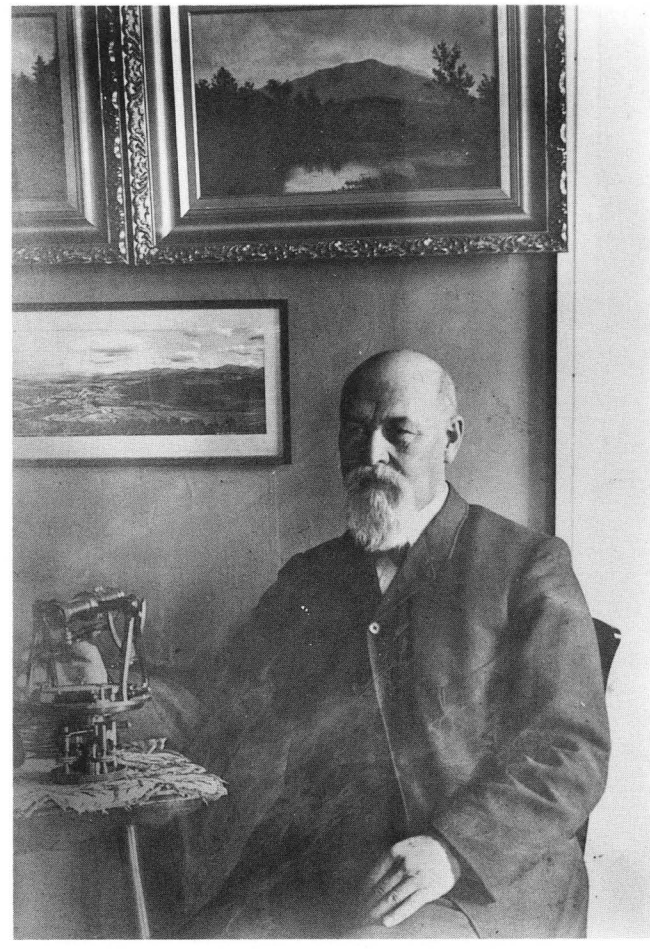
(Frank) Hodgman to his hometown weekly newspaper, the *Climax Cereal*, in Climax, Michigan. The narrative records Mr. Hodgman's experiences while employed as a civil engineering surveyor and locating engineer with General William Jackson Palmer's three-foot gauge Denver & Rio Grande Western Railway during its initial construction in the Wasatch Mountains southeast of Salt Lake City, Utah in 1881 and 1882.

Frank Hodgman was born in Climax, Michigan on November 18, 1839, the second of three boys in the family. In 1861 he graduated as a civil engineer in the second graduating class of Michigan Agricultural College (now Michigan State University) at East Lansing. In 1862 he earned the degree of master of science from the same school.

Four days before his 31st birthday, in November 1870, he married Florence Betsy Comings at Galesburg, Michigan. To the couple were born a son and two daughters. It is to three descendants of those Hodgman children—Mrs. Flora Hodgman Temple, daughter of son Harry; Mr. Deland H. Davis, son of daughter Lucy; and the late Mrs. Alice Tobey Martens, daughter of daughter Fanny—that all credit must be given for cherishing, carefully preserving, and graciously sharing with us the letters, the photographs, the newspaper articles copied here, and other information about the work done by their grandfather Hodgman during his time in the West.

Mr. Hodgman, departing his home and family in Michigan in mid-February 1881 for his new job, was by now an experienced surveyor 41 years of age. Upon his arrival in Chicago he met the other members of the engineering party being assembled there by Assistant Engineer Frank P. Davis. The group, with instructions to report to Salt Lake City, left Chicago on February 20th and, after a long monotonous rail journey across the plains of Nebraska and Wyoming, as recorded here, reached the capital of Utah Territory the night of February 23, 1881.

However, before entering upon this year-long series of reports on a remarkable saga of exertion and exploration in the wilds of Utah more than a century ago, let us consider the lament of John A. McMurtrie, chief engineer of Colorado's closely-allied narrow-gauge Denver & Rio Grande Railway. With overall responsibility for organizing, efficiently conducting and overseeing all engineering work in the field for both companies, Mr. McMurtrie encountered numerous obstinate problems. In his report of construction activities for the year ending December 31, 1881 he remarked:



In about 1902, Frank Hodgman posed with the surveyor's transit he had used over two decades earlier as locating engineer for the D&RGW Ry. in eastern Utah. (Marie and Deland Davis collection)

> ". . . In the early part of the past year it was almost impossible to secure engineers competent to take charge of a party, although hardly a week passed that I did not receive orders to put from one to three parties in the field. The extraordinary amount of railroad building in this country and Mexico made engineers of any kind scarce. There being so few competent engineers, they are always employed, and the only way to secure their services is by paying them considerable more than they are getting in the East to compensate for the difference in comfort and price of everything. In the East engineers work six to eight hours a day and live at first-class hotels; out here they work 10 to 18 hours a day, live in a tent, and on soldier fare.

"In order to comply with these urgent requests for Engineers Corps I was compelled to employ hundred of new engineers, most of whom, I am sorry to say, proved entirely incompetent for the position they undertook to fill. Men from the East with good letters recommending them as competent locating engineers were found, after they had been at work a few weeks, to know nothing about locating in these mountains or canons. . . ."

Thus, Mr. Hodgman's story involves the abilities, skills and professional knowledge of a well-recommended civil engineer from the East, challenged not alone by the unfamiliar problems of locating a railroad through canyons and across mountains, living in a tent and subsisting on soldier fare, but overcoming the prejudices and skepticism of a superior officer who was an old, experienced hand at such work.

The major portion of this narrative is copied from the *Climax Cereal* newspaper mentioned. However, a portion is taken from Mr. Hodgman's original handwritten manuscript, free of editing. The unedited manuscript is so marked.

IN THE MOUNTAINS OF UTAH

February 1881—March 1882
by Francis (Frank) Hodgman, M.S.

CHAPTER I—THE UNION PACIFIC

Mr. Editor:—When a few months since I had the great pleasure of enjoying the hospitality of the good people of Schoolcraft and assisting at the exercises of the Farmer's Institute it was without the least thought or expectation that in a very short time I should be thousands of miles away in the very heart of the least-known part of the United States. It has, however, so happened. Saturday evening (February 5, 1881) after the Institute a telegram came from New York asking me to take a position as engineer on the Denver & Rio Grande Railway, and in two weeks more I was on the road westward.

As I stepped upon the cars at Climax one afternoon in February the air was cold, the ground covered by snow, and all evidences of severe winter weather to be seen on every side. A ten hour ride brought me into Chicago, where the snow lay piled up in heaps about the streets, blockading the way, making traveling uncomfortable and even dangerous. Here I met other members of my party and got orders to report in Salt Lake City. One day was spent in making purchases of an outfit, of clothing, medicine, arms, and ammunition, for we were destined for a new and unexplored country where the Ute and the Grizzly were supposed to have full sway.

The Union Pacific Railway had stretched across the country, and with its completion had opened up a belt of country from Omaha to San Francisco; the Northern Pacific had stretched its line from Duluth westward, and the Missouri river, the Yellowstone, and the Columbia had been thoroughly explored; the Atchison, Topeka & Santa Fe and Southern Pacific roads had opened up the belt through New Mexico and Arizona to the western ocean; but between these roads, in eastern Utah and western Colorado, was a tract of country as large as the State of Michigan, which was a *terra incognita* to the outside world. High mountain ranges, sandy deserts, and warlike Indians had kept the world at bay so far, but a new railroad system was stretching out it arms in all directions to "gather in the spoils of trade," and looking for another path to the ocean. This wild land had to be pierced and pay its tribute on the way, and our party was one of those sent out to open up the way.

We left Chicago at noon, the 20th of February (Sunday), by way of the Chicago & Rock Island road. It was clear and cold outside, and warm and pleasant within, as we drew out of the city and passed through the handsome suburban villages. Soon we left them behind and struck out into the open, rolling prairie. Here is a field of corn standing in shocks unhusked, yonder is one with stalks standing where they grew, and herds of cattle wading through the snow and munching the stalks. We passed a homestead that looked as it might have come from Prairie Rondo. The house is large and old, and needs a coat of paint, and the boards are loose upon the barn. The cribs are stuffed with corn, and so are the hogs which lie in herds around. The fences are old and rotten, and the holes in hedges stopped with sticks and boards. The cattle are sleek and fat. Some well-to-do, slovenly old farmer lives there, as we can see at a glance as we fly past. He is independent and does not care how things look. We passed plenty of more farmsteads just like it, and except that, as a rule, the buildings are not as good and there are fewer barns, one might almost fancy himself passing through the southern part of Michigan.

Night found us crossing the Mississippi at Rock Island of which we hardly caught a glimpse in the gathering darkness. The great bridge rattles and creaks as the wheels roll slowly over. The washing of the waters is heard below, and the lights peep out one by one from amid the gathering gloom. Daylight breaks upon us in western Iowa, and at 9 o'clock the train pulls up at Council Bluffs, the end of the road. We have had the best of accommodations. The cars have been most comfortable, the meals in

the dining room car all that the most fastidious could wish, and the employees courteous and obliging. We are now to have a change.

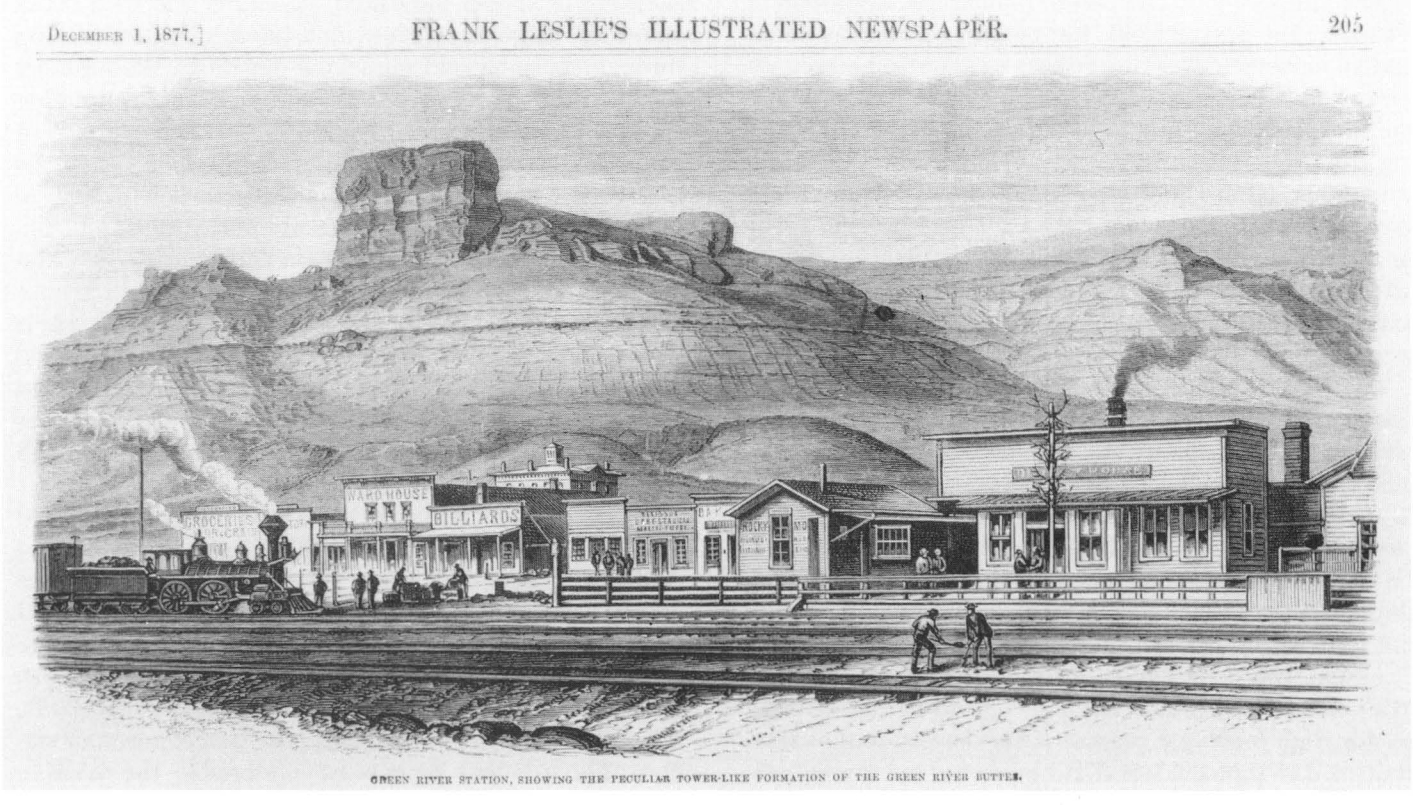
There is little to be seen at the station in Council Bluffs: a little town a mile and a half away under the bare bluffs; a stretch of level bottom land with railway tracks stretching across it, rails shining like spider threads in the sun. The snow has disappeared and the weather is warm. We go through the great depot building, get a lunch at one place and our checks changed at another. Our baggage, which has come thus far checked without question, is overhauled and weighed, and every extra pound must be paid for, for we are now entering the domain of the Union Pacific. Our train backs down to the depot and we step aboard with our guns in our hands, as we have brought them from Chicago. An employee meets us at the car door and tells us we will not be permitted to take them in the car with us but must hand them over to the baggage smasher and pay him a dollar to take care of them for us. We are obliged to put up with the imposition and try to get even by damning a monopoly which is an imposition to the whole American people, and giving everybody we can reach, who expect to travel on the Union Pacific railroad, this advice: Don't take a pound of baggage you can do without, and keep your guns out of sight, and don't forget to tell your neighbors.

Just before noon the train pulls out, running slowly over the great iron bridge which here spans the Missouri. Fifteen minutes brings us into Omaha, a city set upon a hill, along whose sides the dirty water trickles down the muddy streets, for the snow has gone off or lies in patches along the hillsides. We climb slowly out of town and go winding among the wooded hills which are covered with a growth of small timber about the size of our second growth trees at home. Pretty soon we descend into a valley, treeless and snow-covered, and all the day long we travel over what seems to us an endless desert, the valley of the Platte river. True, we sometimes see a lone house, a great cornfield, a little village, or a few lonesome little cottonwoods, but they only intensify the dreary monotony. Night shuts out the view, but when morning comes to us miles and miles away, it is just the same again. They tell me that the land is rich, and I can easily believe it, but I would not make a permanent home on the great plains if they would give me the whole country. The man who leaves Michigan to live in such a country as this leaves half of what life is worth living for. We stop along the road for meals. The railroad company owns and runs the houses. They furnish a good meal, plenty of time to eat it, and charge a dollar.

We are gradually climbing the great divide of the continent, but so gradually that we do not notice it from the cars. The scenery begins to change, the ground is a little more rolling, and we see here and there some scattered, stunted cedars and pines.

At Lodge Pole station two small boys, apparently only ten and twelve years of age, are standing on the platform

Green River Station, Wyoming, on the Union Pacific, had changed little from this 1877 view when Frank Hodgman traveled west four years later en route to his assignment for the D&RGW Ry. in Utah. (Denver Public Library Western History Department)



dressed in buckskin, well-worn, with slouched home-made fur caps on their heads. They are armed with rifles, pistols, and knives, and their belts are stuck full of cartridges. A little farther on a coyote scampers off across the plain as the train flies by him. We have long since passed all signs of human habitations except at the railroad stations and here and there a little hut made of mud, or dry, rough stone covered up with earth, but now we see occasionally a herd of horses, or a great flock of sheep. Great numbers of dead cattle have lined the road all the way from Omaha.

The snow which covered the valleys below disappears as we come nearer the summit of the Rocky Mountains. We have not seen any mountains yet, but just before noon of Tuesday we catch a glimpse of a few peaks, apparently hundreds of miles to the south. They are the great peaks in Colorado. We dine at Cheyenne, the smartest and most substantial appearing town we have seen since leaving Omaha. An hour after we are at Sherman, the summit of the Rocky Mountain divide. If not told we should have not known it, for the only mountains we have seen were those in Colorado miles and miles away. Now we glide down the western slope. Each curve in the road brings a new view of hills and valleys, the hills growing into mountains, and the valleys deepening as we descend. By nightfall we have got down to the snow line. It seems like a strange anomaly: the mountain tops are warm and dry, and the flocks grazing upon them; in the valleys are cold and snow. A big drift catches us and we wait an hour in the silence of night till another train comes along and helps us out.

Morning again finds us; we are thundering down the western slope, threading a narrow valley with high hills on either side which grow into mountains as we descend. The stream becomes a torrent and the valley becomes a canyon, with the one thousand mile tree, the pulpit rock, the devil's slide, the devil's gate and various other devilish attributes for ornaments. To those of us to whom such scenery as this was new, it seemed sublime and awe-inspiring. We stood out on the platform and peeped through the windows from side to side, calling each other here and there, that nothing should escape us. Since then I have been through wild mountain passes, canyons and valleys that make the Echo and Weber canyons seem tame and insipid by comparison.

At dusk Wednesday (February 23, 1881), we reached Ogden and changed cars for Salt Lake City, which we reached after a couple of hours ride in the dark.

CHAPTER II
IMPRESSIONS OF SALT LAKE CITY

My last communication left me at Salt Lake City on the evening of the 23rd of February. Our party got there late in the evening and put up at the Continental Hotel. This is a large house only two stories high, built of adobe or sun dried brick, with many of the guests' apartments on the ground floor. The rooms were neat and well furnished, and the table better supplied than at any of the hotels I have stopped at in southern Michigan. The charges to our party were $2.50 per day. We staid (*sic*) there three days and had no occasion to complain of our entertainment.

Those three days were busy ones and we had little time to spend in sight-seeing. The old Mormon Temple is near the hotel, and we took a look around the outside of it. It looks much like a cheese box with a big wash basin turned upside down for a roof, as anything I can compare it with. As it was Endowment Day we were not permitted to go inside the walls which fence it in. All the old residences of the Mormon big-bugs, and some of the little bugs, are fenced in with high, strong stone walls so that if any peeping Tom wanted to take a squint at the Harem he would have to get a ladder to climb the fence with.

These Mormon fellows are building a new temple nearby the old one and have got the walls pretty well up. It does not appear to be of any particular style of architecture any more than the old did, and I don't know as I can describe it any better than to say it is as unlike the other as possible. It is of cut stone, cost a mint of money, and the walls not up yet.

The Temple is in a large square, the streets on each side named North, South, East and West Temple Streets respectively. All the other streets run parallel to those and are named from them as the 1st, 2nd, 3rd, North or South Temple Streets, etc., as the case may be. The city is supplied with water from a stream which comes down from the mountains nearby, and is carried in ditches along the gutters of every street, with a little gateway at the corner of every man's garden to irrigate with. This water in February was clear and cold, and every man and his hog drank out of the same ditch. Rows of shade trees adorn the gardens, and altogether it is a nice, pleasant place to stop in if only the houses were a little better constructed and the fences less forbidding.

It was at least a pleasant transition from the severe cold and snow which I had left in Michigan five days before, for the warm spring days, with men working in their gardens and blackbirds singing in the budding trees about the city.

When Hodgman arrived in Salt Lake City, it was emerging as an urban oasis in the Great Basin desert, with the Mormon Temple still under construction. (Denver Public Library Western History Department)

The business part of the city is not specially attractive. The buildings as a rule are poor. About the most pretentious one I saw is the large block of stores belonging to Zion's Co-operative Mercantile Institution. The Mormons are great in the "co-op" plans of doing business and every town has its "co-op" store where they all trade, but the great Z.C.M.I. is the greatest "co-op" of all. It has a large block of stores fronting on the square and at least 200 feet deep, where all kinds of merchandise are sold; dry-goods, groceries, drugs, paints, clothing, harness, wagons, boots and shoes, farm implements, and so on to the the end of the chapter, have each their separate apartments and a large stock is carried. I had occasion to make some purchases of them and found the clerks gentlemanly and obliging, prices a little higher than at home and the quality of the articles good. The clothing sold is especially good, the quality averaging a good deal better than that kept in the stores at home. I bought two pairs of overalls at $1.25 per pair that have now lasted me six months of mountain climbing, harder on clothing than anything I have ever experienced at home, and I had rather have them now than any two pairs of overalls I ever saw for sale in Kalamazoo county. This remark in regard to quality of goods kept, so far as I observed, was true not only of the "Z.C.M.I." but most of the stores in the city. I went into a knitting factory and purchased several pairs of stockings of a better quality than I was able to purchase at home for the same price.

There are a great many Michigan men among the Gentiles of Utah, most of them being interested in the mining affairs of the territory. Among those I met Arthur Brown, lately from Kalamazoo, and Judge Van Zile, of Charlotte, who were at the time arrayed as opposing counsel in the Apostle Cannon's scramble for a seat in the National House of Representatives.

(Now begins Mr. Hodgman's handwritten manuscript): In the legal bout before Judge Twiss, Judge Van Zile, as counsel for Governor Murray, came out ahead and the Apostle lost his seat.

During our three days stay in the city we laid in an additional stock of clothing—strong duck goods made on purpose to withstand the hardest wear, heavy blankets for bedding when we came to camping out, cartridges for our guns, haversacks for our lunch, sheets of wide heavy canvas to roll our bedding in to keep it out of the dirt, and stout leather straps to fasten it with. Added to this we took such a supply of medicines as we learned we were likely to need.

CHAPTER III
OFF FOR THE UNKNOWN COUNTRY

1881

It was Sunday morning, February 27th, that we left Salt Lake City by way of the Utah Southern Railroad bound for Castle Valley, wherever that was. Nobody seemed to know much about it, only it was on the other side of the Wasatch Mountains, and to get there we must go southward along their western slope until we could find a pass through or over which we could cross the mountains at that time of year, and then we must turn north again to regain the lost ground. It was warm as a May morning at home when the car rolled out of the station bearing us southward. Farmers along the route were preparing for the spring plowing, and some had already commenced. The farms were small, the houses poor, built of logs or flat stones laid up without mortar, and roofed with a layer of poles and brush or hay covered with earth. All the land has to be irrigated in summer to produce crops, but irrigation had not then commenced. It did not look homelike in America at all. Everything seemed to us as foreign as the people who dwell there, most of whom are European immigrants.

On one side of us the Wasatch Mountains rose grim and snow-covered to a height of from 8,000 to 12,000 feet. On the other side the Salt Lake Valley spread out before us, with a stream, the river Jordan, winding through it on its way to the great Salt Lake and here and there spreading out into reedy marshes. Beyond all were the blue and hazy outlines of the Oquirrh Mountains. All along the base of the mountains we could plainly trace the long level terraces rising one above another which showed the shore lines of the great Salt Lake as it had occupied them in different stages of its history.

At one place we pass a big smelting furnace where the precious metals are reduced and long trains of cars stand upon the side tracks loaded with ore. Occasionally we pass a little lake. One of them of apparently about ten acres gives forth clouds of steam and we are told that it is a great hot spring. Here and there we glide slowly through a thriving little village as we climb along the base of the mountains. Thrifty looking apple and cherry trees adorn the gardens, and pleasant shade trees line the streets. Passing to the eastward of Utah Lake we hug close to the base of the mountains, climbing higher as we go.

At Provo we come to a smart little town noted for a large "co-op" factory which turns out the greater part of the woolen blankets used in this country. When a man goes on a journey here he takes his bed with him. The bed is a pair or two of Provo blankets. If he goes on horseback his bed is on the ground with the blue dome of the sky for his roof. If he goes with a wagon, that serves for bedstead and tent. We see no barns—only corrals in their stead. A corral is simply a yard surrounded with fence tight enough and strong enough to prevent the animals which are impounded there from getting away. In some places we see gardens enclosed with fences of brush woven like basket work.

We pass a plenty of oddly named towns, and at noon bring up at Juab, where we leave the railroad. It is only a little place of three or four houses, two of which are called hotels. The Mormons are great on names. There are Juab and Nebo and Nephi and Lehi and Manti and Levan and Moroni and, for aught I know, Sohi and Skyhi and Nehi.

We took dinner at one of the Juab hotels and then started out in three spring wagons across the country. We follow a trail back along the railroad for half a mile, then cross the railroad and follow a rough and muddy road up a valley to the southward. The stream we are following dwindles as we ascend until it disappears entirely. Here and there the ashes and coals of campfire, a broken bottle, an empty tin can and a bacon rind tell where some traveler has spent the night. The valley contracts to a narrow compass until presently we reach its summit and begin to descend into the valley of the Sevier River. Mount Nebo, 12,000 feet high—flanked by the San Pitch Mountains all covered with snow—towers above us on our left. Far ahead the wedge shaped peak of Mollie's Nipple pierces the sky. To the right the river runs below, and the snow-covered Valley range looms up beyond, cold and forbidding. Mountains to the right of us, mountains to the left of us, all covered with snow. An opening in front of and below us, and low foothills on either side of the valley, adorned with scattering evergreens and glowing in the most beautiful and delicate colors, blended in every shade and tint that can be imagined, all together make a picture most beautiful and grand beyond the power of description—a picture that a man will carry with him to his last resting place.

After a few miles we come into the more commonplace scenery of the valley again. There is no snow in the valley. There are a few streams made by the melting snow from the mountains, and some dry beds of streams. These streams cut deep gullies in the clay and the banks are vertical. In many places the ground is white with an alkaline encrustation. There is little vegetation, and that mostly sagebrush and soapweed. The clayey *(sic)* ground is just wet enough to cut up into mud under the wheels, and just dry enough to be stiff and make hard wheeling.

The sun is getting low and soon disappears entirely. The air becomes more and more chilly as night comes on. There is no moon and we still push on amid the shades of night, with only the stars to light our course, until the thump of the wagon as it bumps through some irrigating ditches tells us we are approaching human habitation again—the first since leaving Juab.

Presently we cross a little stream from which clouds of steam are ascending in the cold air and in a few minutes we pull up at a log house, the hotel of the village of Warm Springs. A Mormon church stands over the way, and everybody but the old gentile who keeps the hotel is off at church. We are too late to go to church, but there is no help about the house and we have to wait until after church is out before we can get any supper. There are neither beds nor bedrooms for our party, so after supper we all roll ourselves up in our blankets on the floor of the common room and begin our experience of sleeping without a bed. It is perhaps needless to say that the floor seemed very hard before morning. The wood used here was crooked, gnarly, knotty sticks of cedar and pine—brought from the mountains miles away.

Monday morning (February 28, 1881) we were up bright and early as there was no comfort for us lying on the floor. While the drivers were caring for their teams we all went out for the first time to try our new guns. Davis and I had Remington repeaters, Gillette had a Hotchkiss, and O'Neil had a Winchester, and it did not take us long to find that all were capable of doing good work.

We were off betimes. Nine miles from Warm Springs is the little village of Gunnison containing one or two hundred inhabitants, which we passed through without stopping, and at noon we reached the village of Salina, where we found Mr. M. (Micajah) T. Burgess, the Chief Engineer of the Sevier Valley R.R.—a local name for the western extension of the Denver & Rio Grande R.R.

A train of mules had been started out from Salt Lake City two days before we left there for our use on the trip into the wilderness, but they had not yet arrived and we had to await their coming. We were given a tent to sleep in and took our meals at a boarding house for a day or two, but that not proving satisfactory we were supplied with provisions and cook and went to keeping house for ourselves. While waiting we took a good look at the place.

Salina is located on Salt Creek, up whose banks we are to pass on our way over the mountains. There are high mountains on one side, and the valley of the Sevier River on the other. It has apparently about 300 inhabitants. The soil is a deep red and the red hills nearby contain crystals of gypsum which glisten like diamonds in the sunlight. The houses are like all the others we have seen. Some of them are dugouts—half underground. The sandstone rock is strongly impregnated with salt and considerable salt is made here. It is of very poor quality if we may judge by the salt furnished us for table use.

At the boarding house was a Danish girl, Zina, who made great sport for us by repeating the sermons of the Mormon elders, of "giving testimony" as they call it. For comic absurdity the old burlesque sermon about the "harp of a thousand strings" and "Flee unto the mountain of Hepsibah" could bear no comparison with those recitations of Zina. If, as was claimed, she repeated literally the "testimony" of the elders given in their churches she had a most remarkable memory. If she made it up as she went along she had a most wonderful talent that would have made her famous under different circumstances. We never heard or saw anything half so funny. I have always regretted that I did not manage some way to write out some of the "testimony" that she repeated.

On Wednesday night, March 2nd, the pack train we had been waiting for made its appearance, and all day Thursday was spent trying to get the party organized and started. The mules were all green, had never carried a pack, and the men who came with them were greener than the mules. There is a certain amount of science required in putting a pack onto an animal, to have it stay in its place firmly and ride easily so as not to distress the beast. Men who understood it and made a business of it commanded $60 to $80 per month and expenses.

None of our men had ever put a pack onto a mule. After considerable delay a young man comes along who wants to go as a packer. The Chief Engineer asks him,

"Have you had any experience?"

"Yes."

"What hitch do you throw?"

"The diamond hitch."

"Very well. There are your mules and men to help you. There are the saddles and the goods to be packed. Go to work and pack them up ready for a start."

Before the first mule is packed it is evident that his experience has been limited. The pack is in a round bundle on top of the mule's back, ready to overturn at the first opportunity. Old packers would not recognize the manner of tying the ropes as having any near relation to the diamond hitch. The Chief means to give the man a fair chance and keeps him at the work. Mule No. 2 is brought up, and packing begins. Mule No. 1 lies down and rolls to divest himself of his load, which he does most effectually. While he is being gotten up and the pack readjusted Mule No. 2 buck a few times and then he, too, lies down and rolls with like success. There are fifteen animals, and the outlook is not promising.

A man is set to watch the packed mules and prevent their lying down. We soon find that it takes a man to each mule to do that, but the packing goes on. When night comes on the party has not yet started. Two mules are standing ruefully with pack on their backs. Thirteen more are walking quietly about the yard, contemplating with evident satisfaction thirteen broken pack saddles and scattered packs.

Two or three old packers stand around with hands in their pockets and pipes in their mouths, chuckling over the result. The company will pay only $45 per month and they cannot be hired for the wages. One of them, for a consideration, takes pity on the crowd and spends the evening teaching our men how to make up and put on a pack. Davis and Hunt work at packing and unpacking until late at night and they have mastered it.

Friday morning the old packer assists in the packing, and by ten o'clock we are off. One wagon starts with us to go as far as the roads will permit, when it is to return and

from thence everything is to be packed. Our baggage is all put away in the smallest possible compass. Everything that can be dispensed with is left behind. What remains is put into a common two-bushel bag and strapped on a mule. A short distance out we meet a party of Engineers who have just arrived from Colorado across the country. They look tired and travel worn and they give a dismal account of the country they came through. They are prospecting the country for an available railroad route. The Chief for the party is a German named Mathyus and his principal assistant is a gentleman named Porter. They tell us there is great danger of an Indian war in the spring, and they dread the return trip.

During the halt the men are busy tightening and rearranging the packs, which have already become loosened. We pass on along the foot of the mountain range a short distance when an opening appears at our left through which a little brook comes tumbling down. This is the Salt Creek Canyon. There is no snow here, and the rocks and mountain sides are decked out in all colors of the rainbow. The railroad stakes are sticking along the line and in places men are at work grading.

When night came on we were about eight miles out from Salina and we pitched camp for the night. Hunt was about sick with a cold—caught the night before while learning how to pack the mules. He and I slept under the same blankets, and in the night we had a serious time with him; he seemed to be choking to death. Mr. Davis, as Chief of the party, was the only one who had a horse to ride, and in the morning he gave up his horse to Hunt, who rode ahead, and Davis walked with the rest of us.

As we penetrate the mountains the rocky walls of the canyon rise steeper and higher. A wagon road is dug out in places along the slope of the mountainside, but it is a dangerous road to pass and more than one unlucky wagon has taken a roll down the mountainside into the creek below.

The cliffs are from 500 to 2,000 feet high on either side, and in places it would seem as though the road were coming to and abrupt end, walled in on every side. But an opening is sure to present itself and we pass on. Every little way we find holes in the mountainside where men have prospected for coal and thrown out small heaps of it. Presently the formation changes and the rocks assume a dull gray color and are wrought into fantastic forms. There are intervening strata of ocher-yellow rocks. In places the canyon is very narrow and in the worst places graders are at work, as we suppose, to hold the pass. There are two sets of stakes, one belonging to the Sevier Valley R.R. and the other to the Utah Southern R.R., and engineers and graders are at work on both lines. At one place an immense rock has rolled down to the brookside and it so closely resembles a blacksmith anvil that it had been christened the Anvil Rock. The rocks are of sandstone and strongly impregnated with salt, which dissolves out, leaving the surface loose and honeycombed.

This night brought us to Blaylock's camp, where we found Hunt awaiting us, sick and discouraged. We passed on a short distance and went into camp. The night was cold and frosty, and in the morning there was a light snow in the valley. The mountain sides were thickly covered. It was Sunday morning, March 6th. Just as we had finished

1881

Nephi, Utah, had several substantial business buildings at the time Hodgman stepped off the Utah Southern train. Nearby, 11,987-foot Mount Nebo watches over the town. (Western Michigan University History collection)

breakfast one of the men announced that a deer had been seen coming our way along the mountainside. Every rifle was brought into requisition, some going one way and some another. I went down the canyon in the opposite direction from the others and soon saw a magnificent buck picking his way slowly along the cliffside at least 500 yards above me. I fired as he came into an open space, and had the satisfaction of seeing him make a leap and fall. It was a tedious climb up the mountainside to where the deer was, and when I got there he was not there. I found where he had fallen and then got up and ran off right over the top of the mountain. I was already well-blown with my exertions and the rest of the party were already on the road, so I most reluctantly gave up the chase after the first deer we had seen and followed after the party, which I overtook after a few miles.

Hunt, as usual, had ridden on ahead to the next engineers camp. My brother (*this is the first mention that Samuel Chase Hodgman, Frank Hodgman's older brother by eight years, also was along as a member of the party—editor.*) and O'Neil had pushed on rapidly while Davis, Gillette and I came next, leaving the teamster and the packers with mules to bring up the rear. We were soon far out of sight of them.

As we passed on up the canyon it widened out more, the mountainsides were not so steep and high, and there were more cottonwoods and willows along the stream and we occasionally saw a lone pine tree upon its banks. The snow, too, was growing deeper as we ascended, and the air rarer, noticeably affecting our breathing. Just before noon we passed through a thicket of willows. Near its farther edge a large raven flew up from the carcass of a dead sheep by the roadside and alighted on the top of a small pine tree thirty yards away. Each of us raised his rifle to fire. I was first to shoot, and the raven dropped. I went to pick it up and found it a most tedious trip over rough ground through snow more than two feet deep, but I got the bird, which must have weighed at least a dozen pounds. It was the first thing we had to show for the guns we had carried two thousand miles or more from Chicago, so we plucked his quills and threw him aside.

Here the valley widened and we entered Meadow Gulch. This is a broad, meadow-like valley nearly a mile wide and about three or four miles long, open and free from trees. The snow lies deep in it and the winds have drifted it until much of the road is invisible, and we follow it more by the sense of feeling than by sight for the moment we leave the beaten track down we go up to our armpits in the snow. It is a hard tramp, but by one o'clock we have passed the gulch and reached Gillson's summer ranche *(sic)*. There is a corral here, and a hut. The hut is made of small logs or poles set on end, side by side in the ground, and seven or eight feet high. Poles are laid across the top, then some brush and hay, and lastly a coating of earth. No one lives in it now. It is divided into two compartments. In one of them is stored a mowing machine and some horse hayrakes. The other is empty and has a rude stone fire-

Thirty-one years old and newly married, Francis Hodgman was ready to embark on a long and distinguished career as a railroad locating engineer. (Western Michigan University History collection)

place in one corner. We brought in some poles from the corral, started a fire, and "niggered" the poles off in suitable lengths for the fireplace, watching anxiously in the meantime for the coming of the train with our bedding and provisions. We could see down the road the whole length of Meadow Gulch, but no train was in sight.

Hunt had rode on and my brother had pushed on afoot for Ball's camp some six miles farther on. Davis, Gillette, O'Neil and I were at the ranche. When four o'clock came and still no train in sight, Davis and Gillette started back to them. O'Neil and I prefer to remain where we are—dinnerless, supperless, and bedless—rather than tramp twice more over that cold, dreary, snowy Meadow Gulch.

Presently two rough-looking men, armed to the teeth and driving a pack animal, ride up, dismount, and proceed to make themselves at home. One of them cares for the animals while the other takes a small axe and cuts a good stock of wood for the night, taken from the poles in the corral. Presently, when the fire is well blazing, he produces a camp kettle and frying pan, brings some water from a little stream nearby, and soon has tea steeping and

some bacon frying. These, with a loaf of bread, make a meal which they invite us to share. They are dangerous looking men of whom we only know what we can see, but to refuse to eat when we are *so* hungry is a sin we are not likely to commit just now.

The men tell us they have been engaged with a party of United States Land Surveyors in California and are now making their way to Colorado in hopes of striking something better. We have no reason to disbelieve their story, but felt much easier in knowing that we were armed as well, if not better, than they.

About nine o'clock Davis and Gillete returned with two pack animals loaded with blankets and provisions, which made us comfortable for the night. Soon after, my brother rode in on Davis' horse, almost famished, and chilled to the marrow. He had walked on to Ball's camp, reaching there by the middle of the afternoon, but he was not welcomed and was refused anything to eat. Hunt was there, too sick and exhausted to return, so he (Samuel Hodgman) took the horse which Hunt had ridden and came back to find us. His clothing was still damp from perspiration, and the six-mile ride in the chill night air of the mountains nearly froze him.

Monday morning, March 7th, we again pushed on and reached Ball's camp about two o'clock P.M., where we stopped to await the coming of our train, and on their arrival encamped for the night. This camp is near the summit of the pass, and I climbed the nearest mountain top from which I had a magnificent view of the surrounding country. It is all mountains and valleys, as far as the eye can reach, and away to the east I could see three great snow-capped mountains *(probably the LaSals—editor)* in the far distance.

There is but little snow here, only occasional patches. From here the road descends to the eastward down the valley of Ivie Creek. The air is so rare that the slightest exertion makes one puff as though he had been at violent exercise.

Tuesday, March 8th, Gillette and I walk on by ourselves in the morning. The road is through a desolate looking country. The valley deepens rapidly as we descend to the east. The rocks are mostly of sandstone and have little of the coloring that we have noticed elsewhere. Five or six miles travel down the dry, bare valley brought us to Gillson's *(sic)* Ranch, where we found him and his family. We stopped and chatted with them a couple of hours and got what was a great treat to us—a drink of milk.

This was the first residence we had seen since leaving Salina four days since. Gillson is a noted scout and knows every prominent Indian in the country. He is a tall, well-built, powerful man in the prime of life, a dead shot, and was long in the employ of the United States government as a detective. He was prominent in the arrest of Brigham Young, John D. Lee, and other Mormons for their part in the Mountain Meadow Massacre which took place at Mountain Meadows near the Sevier River. He is a well-informed man and the owner of a number of ranches, coal veins, and large flocks of sheep and herds of cattle. He gave us directions as to our road and we passed on down the valley taking a shortcut that he pointed out to us.

We had not gone more than two or three miles when he overtook us, rifle in hand and walked with us to Wilbur's camp. He was much interested in our guns, which were a pattern new to him, and tested them in comparison with his own Sharps rifle. He found that at long range they were superior to his.

(Contrary to Frank Hodgman's assertion, Brigham Young, leader of the Mormon church, was not arrested in connection with the Mountain Meadow Massacre. Of greater interest here, however, is the meeting with the legendary Samuel Gilson, after whom the asphaltum mineral "Gilsonite" is named [note the difference in spelling from Mr. Hodgman's manuscript]. The Story of Gilsonite, *published in 1957, has this to say about Samuel Gilson:*

> *"More than anyone else, Sam Gilson was responsible for Gilsonite's early development and certainly deserved to have his name indelibly attached to the mineral. Not only did he buy up claims and locate others himself, but he sought uses for the mineral and cleared up complications of mining rights. Most important, he interested C.O. Baxter, a St. Louis mining engineer, in Gilsonite.*
>
> *"Gilson had been a rider for the famed Pony Express, an Indian scout and an interpreter. In April, 1853 he attended the laying of the cornerstone of the Salt Lake Temple of 'The Church of Jesus Christ of Latter-Day Saints.' He was present at Promontory, Utah, on May 10, 1869, when the golden spike was driven to mark the completion of the first Trans-Continental Railroad.*
>
> *"He also served as United States Deputy Marshal, and in 1885* [four years after the meeting here described by Frank Hodgman] *aroused considerable antagonism among his Mormon neighbors, then in the midst of their polygamy battle with the United States Government—a feeling which Gilson apparently reciprocated. But any ill feeling had dissipated by the time he died in 1913.* The Deseret News, *in its obituary of him, recognized Gilson as a Utah pioneer and had not a word to say against him."—editor)*

About six miles from Gillson's ranch we came to the camp of H.D. Wilbur just at the entrance to the noted Castle Valley we were in search of. Wilbur was the farthest out of any of the engineers in the company employ. Today's trip has been through the most desolate looking country of any we have yet passed through, and still we saw great numbers of cattle apparently feeding along the mountainside, although I could not see what in the world they found to eat.

The teams came up just at night, out of feed—and none was to be had here—so we pitched our tents to stay till they could be sent back to Salina for more feed. We had

to carry grain in sacks and hay in bales to feed the animals as we went, for none was to be had on the route and we would not depend on finding grass for them. So it looked as though it would not be long till we should be far enough away so that the animals would eat on the road all the hay and grain they could bring from Salina before they would reach us.

Wednesday morning, March 9th, all the goods were unloaded from the wagon, everything stowed away in the tents, and the teamsters started back to Salina for more feed.

Twelve years after the portrait on the previous page, a bearded Frank Hodgman was photographed in Salt Lake City surrounded by some of the members of the surveying party who had been under his command. These young men reflect confidence and pride in the task that they had just completed.

CHAPTER IV
CASTLE VALLEY

We were encamped on Ivie Creek at the extreme south end of Castle Valley with Wilbur and his men. As soon as the men and teams were off those of us who had guns started out in search of deer. We were soon out of sight of camp and we separated, each man going his own way. I soon struck the track of a number of deer, which I followed, noting very carefully the landmarks as I went. They were smarter than I, for I never caught sight of them, although I learned later that some of the others of the party did. By noon I thought I must be at least six miles from camp and started to return.

Soon a blinding snowstorm set in, quickly obliterating the tracks I had made. I was thankful that I had noted the configuration or 'lay of the land' so closely, and hurried toward camp as fast as I could. At last I came to a little valley which I followed down to a point where I was certain I had first struck it and which was less than half a mile over a low ridge to camp. By this time it had stopped snowing and I climbed the ridge only to find, to my dismay, that no camp was in sight where I had fully expected to see it. For a moment I gave myself up for lost, but collecting my scattered wits I returned to the valley and began following it downward until I was certain from the familiar look of some of the landmarks that I passed in the morning on the way out. At length I came to another place that looked like that at which I entered the valley and, climbing the ridge, I was gladdened by the sight of the camp close at hand. None of the others of the party were yet back to camp but they came straggling in one by one, empty handed, and we had to assist the last ones by firing our guns to give them the directions to camp.

Castle Valley, as far as we can see from this end, is a narrow valley only a few miles wide, surrounded by high mountains. There are some curious cliffs rising from the middle of the valley, with vertical walls from one hundred to three hundred feet high. One of them that we see at a distance is apparently a square pillar of forty or fifty feet square and several hundred feet high. It is notable landmark, and Gillson calls it 'Netherley's Needle.'

There are abundant traces of some ancient race who once inhabited the valley, principally in the shape of fragments of pottery and spear and arrow points. The bits of pottery are nearly as hard as our stoneware, are ornamented in various ways. Some are brown, some blue, red and yellow. Some are ornamented with colored stripes and some are of one color on the outside and another color on the inside. Some are smooth on the inside and rough on the outside, with figures in various styles moulded in the clay.

The arrow points are of agate, obsidian, chalcedony and similar materials, and are beautifully finished. We found some very small ones. I have one that does not exceed half an inch length, is nearly as wide, and is shaped like a bird with outstretched wings. They were fine workmen in

stone who made those arrow points. We found the places where they were made and sometimes as many as a bushel of fragments and chips of the stone and broken points piled up in a heap together. Some of the fragments were very beautiful.

The valley is cut up by the dry beds of streams called 'washes.' These are very deep in some place and with vertical walls of clay. To us it seems very strange that the banks of the streams and washes would stand so straight up and down and be so hard that we can stand on their very edges without fear of caving when they are composed of nothing but earth.

There is very little vegetation, and what there is is sagebrush, rabbit brush and bull *(?)* brush, with here and there a stunted evergreen. Much of the ground has no vegetation at all growing on it, and there are blocks of lava scattered over it. We are told of coal veins in the vicinity 17 feet thick of an excellent quality.

We staid*(sic)* here at Wilbur's camp until Monday, March 14th. Much of the time the weather was cold and stormy and the wind nearly blew our tents down a number of times.

It snowed every day, freezing and thawing alternately. Hunt was very sick when we arrived here and I had given him all the quinine I had brought with us, without giving him any relief. Wilbur's men said he had the Mountain Fever, and someone said that sage tea was good for it. So I gathered a handful of leaves of the sagebrush and made a strong tea of it and gave it to him. It proved an excellent remedy and he gained rapidly so that by the time we were ready to break camp he was as well as ever.

Wilbur, the engineer with whom we were camping, was a small, red-faced, brown-haired man who had served seven years in South America in railroad work in the Andes Mountains. While staying at his camp we took our meals with his party. He had a cook named Wilson who was said to be the best cook in the western country. We certainly fared well while we staid there. We had nice biscuit, as good potatoes as I ever ate, tomatoes, dried apples and peaches, pickles, bacon, bean, mush, pies and cakes, tea and coffee, all cooked good enough for anybody to eat.

Teamsters came in Sunday with a wagon and the pack mules, and Monday morning we started on again through the snow. We now had two teams and wagons—one which had started with us belonging to the company. A man by the name of Baird who was going to look over the country with a view of taking a contract for grading had come on and had charge of this wagon for the trip. He had an extra pair of horses of his own along. The other wagon and team belonged to the settler and had been hired for the trip.

S. (Samuel) C. Hodgman started out early and alone, ahead of the teams. Soon after I followed with the packers and the mules, and the rest of the party with the wagons came behind. About noon we reached Quechepaw Creek *(currently identified 'Quitchupah' by U.S.G.S.—editor)*—a little, nasty, muddy stream which evidently goes dry in the summer. Here we met a man on foot, driving a pack of about a dozen burros or small donkeys. He said they had left Animas, Colorado *(probably Animas City, soon to be displaced by the D&RG-sponsored town of Durango, Colorado—editor)*, about the first of January, and he told a dismal story of the hardships endured in coming through across the country. A little farther on we met a solitary gray-bearded old man of sixty or more riding along who stopped and questioned us closely as to who we were and where we were going. He was the proprietor of the pack train we had just met and had come through with them from Animas.

It had been a lonesome ten weeks trip full of hardship for him and his man through that wild uninhabited country, and both men and animals showed the effects of it. We afterward learned that this was Major M.F. Hurd—the principal Assistant Engineer who was to have charge of all the work on this railroad east of the Wasatch Mountains. He had taken this way of coming across the country to make a preliminary examination of the route and the trip had been full of peril from Indians, aside from the dangers of cold and hunger.

We dined at the Quechepaw Creek and then I pushed on again with the packers, expecting the teams to soon follow. S.C. Hodgman was ahead of us all, on foot. I overtook him early in the afternoon at Muddy Creek and we waited there till 3 o'clock when the packers came up with the mules and our blankets. I left them there and, as there seemed to be no wood near except sagebrush, and but little of that, I pushed on to select a camping place. Before I returned I was caught in a blinding snowstorm. When I got back to the Muddy Creek I found Baird there with a horse for me to ride back to the Quechepaw, which the teams had not left. As our blankets were with us I did not care to ride six miles back through the storm only to come over the same ground again in the morning, even if we did have to sleep in the open air.

Baird went back with the horses and brother and I prepared for the night. We gathered a big pile of sagebrush to feed the fire, which we kept going till we had a big pile of coals and hot ashes and then moved the whole to another place. Then where the fire had been we put down some fine brush, spread our blankets, and made our bed for the night. Brother had been three years in the Army of the Potomac and was used to camping out under adverse circumstances, but it was my first experience in sleeping with only the sky for a roof. Later in the evening Baird made his appearance the second time with a horse and other provisions which helped to make us comfortable for the night. He staid but a short time and returned to camp.

We kept a good fire and I soon got a lesson as to the amount of heat given off by green sagebrush. My feet were very wet from the days tramp in the snow and I took off my boots to dry them, setting the boots down several feet from the fire. Before I was aware of it one of them

had a great hole in it and was ruined. Under some circumstances this would not have been a very serious matter. As it was, it was a source of great annoyance and discomfort for a long time until I could get it replaced, which I finally did with a pair of stout shoes which my father made and sent me from two thousand miles away. It was the last job of work that he ever completed.

Later that evening the sky cleared and we passed the night comfortably. It was noon the next day, Tuesday, March 15th, when the teams came up to us and Wilbur's party were with them. He pitched his new camp at this point, and while the party were doing this Wilbur and I rode out over the country for a short distance. Davis rode for Ferrons, leaving me in charge of the party.

I started the wagons on as soon as possible and waited to see the pack animals loaded and off. In a little while Baird came riding back, saying the wagon tongue was broken. I sent him on to Ferrons for assistance and we went into camp again, only having made a half a mile. Next morning, Wednesday, March 16th, I got a team from Wilbur and sent a part of the load ahead by him. Later a man came from Ferrons with a team and took most that was left and we succeeded in splicing the tongue so as to move on. We got away about noon and Hunt and I took the two saddle horses and rode on, leaving Baird to bring up the teams. We reached Ferrons about six o'clock after an easy ride of about 15 miles, and camped beside the house of an old Dane where Davis staid last night.

There are only about a dozen houses at this settlement and those of the most primitive kind. That of the old Dane was made of small saplings set upright and interwoven with willow like a basket. The roof was like all the others we have seen, of poles, brush or hay, and earth.

While here, Mathyus made us a call. He was prospecting ahead of us up the next valley. Thursday, the 17th, we pushed on about a dozen miles to Cottonwood, the next settlement, arriving about noon, and here we found a blacksmith and got the broken wagon tongue mended. It took all the rest of the day, and we camped here for the night. It is a larger settlement than Ferrons and apparently contains about 100 people. The people seem to be mostly Danes and their dwellings are of the same primitive appearance we have seen elsewhere.

Friday, the 18th, at noon we reached another little settlement at Huntington on Huntington Creek, took our lunch there, and pushed on some five or six miles when night overtook us and we were obliged to make a dry camp—i.e., a camp without any water. We selected a sheltered ravine for a camping place where there was a little sagebrush, the only wood to be had. Ralph, the teamster who had been employed to take a load of goods through for us, picketed his team near camp, but Baird turned the rest of the teams loose to gather what feed they could. Only Davis' horse was kept. About ten o'clock the moon came up and the teamsters went out to bring in and picket the mules, but no mules could be found. They had evidently struck out somewhere for water.

Saturday morning Baird took the saddle horse and, with the teamsters, went again in pursuit of the lost animals. Ralph, with his team loaded with our bedding and provisions, and a portion of our party moved on, leaving O'Neil at the wagons with the Yafos(?), as we called the Mormon boys, to come in with the other teams when found. Our party consisted of the engineers and Gillette, Hunt, Muses, the cook, and his assistant, or "Slush" as they called him. At 3 o'clock P.M. we reached the Price River where we stopped and waited for the other teams to come up. But they did not come, so after two hours waiting we crossed the river and moved down stream a couple of miles and went into camp near a sheepherder's camp on the river. Sunday morning, March 20th, we moved down the river about six miles and encamped near where we expect to begin our work. Ralph was sent back and Gillette went with him to look after the missing men and teams and bring them on when found. The weather is now warm and pleasant by day and cold and frosty at night. We are now near the north end of Castle Valley and have passed over its entire length except the five or six miles which remain between us and the high range of mountains which they tell us are called the Book Cliffs.

Since leaving Wilbur's camp we have moved along with the great cliffs of the Wasatch range at our left which rise two or three thousand feet above the valley. At their foot is a talus of debris rising as steeply as it will lie, then a vertical rise of several hundred feet, then another slope and another vertical wall, and another slope running back no one knows how far to the summit. It is the same on all sides of the valley. The mountain tops are covered with snow which extends far down their sides. In the valley itself there is snow in some places and none in others. Clouds hang along the mountainsides much of the time, and we could frequently see the snow falling for and hour or two at a time upon the mountainside when all was clear in the valley. Sometimes a snowstorm comes down into the valley without a moment's warning.

Several days on our trip the weather was very clear and pleasant in the morning when suddenly, about noon, it would turn cold and in a few minutes a snowstorm would be raging which would last for an hour or two. The valley is much broken up into table lands of different elevations with here and there a conical peak rising sharply for several hundred feet. In many places the plateaus show their sides, looking in the distance like long railway embankments, the earth standing in a very steep slope.

In many places are volcanic ashes fine and soft, and the foot settles in them as it would into flour. All along the east side of the valley are the peculiar elevations called Mesas, and they take on all manner of architectural forms. Numerous pyramids and monoliths have been separated from the main ranges and stand out like sentinels in various parts of the valley. Weird forms that look like castles old, with towers and domes and battlements, stand out on every side. Great cities seem to greet us in the distance, and what seem to us as strange as anything is that

the tall needlelike monuments which are so high and stately and graceful in their proportions are composed almost entirely of a soft, clayey rock which readily crumbles to pieces in the weather and most of them have a cap of hard sandstone projecting beyond the softer foundation. There is said to be plenty of coal about the valley, and they tell us the veins in. . . .

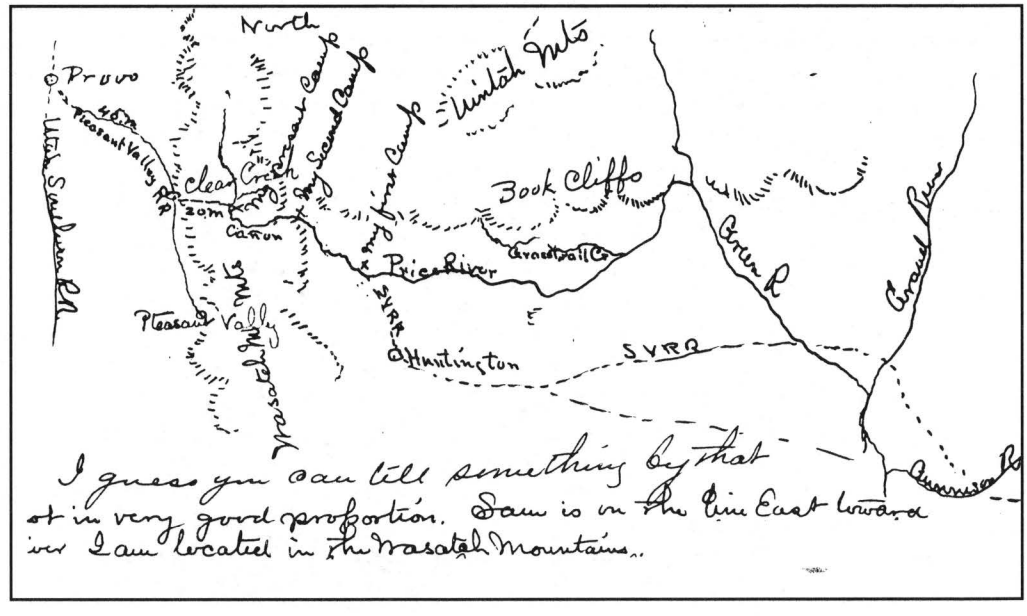
(The last few words above bring to an end the 31 sheets of available handwritten manuscript composed by civil engineer Frank Hodgman in 1881. With no paragraphing, and shy on punctuation, his material has been carefully arranged in the form seen here, with no other editorial liberties being taken. Those pages have been typescripted here because the great amount of detail recorded never saw later publication in the edited and printed newspaper columns, and thus is not otherwise available. Very likely edited by Mr. Hodgman from his handwritten manuscript before being sent to his hometown paper, the accounts published in the Climax Cereal *newspaper summarize the foregoing material in the words that follow, and then carry on the subsequent story to its conclusion.—editor)*

After a few days delay we passed on up the valley as far as Price River, a distance of 150 miles, where our work was to commence—traversing the whole length of Castle Valley from southwest to northeast and viewing many of its wonders. The valley itself is for the most part a desert bounded on the north by the Book Cliffs, on the southeast by the San Rafael swells, and on the west by the Wasatch mountains. It is nearly 200 miles long and from five to thirty miles wide. Several streams cross it at different points, coming down from the Wasatch range and passing out to the east and southeast by tremendous canyons through the mountains to the Colorado River.

We crossed the Quechepa, Muddy, Ferron, Cottonwood and Huntington Creeks in succession on our way north. Running into these streams are numerous washes which frequently extend for miles and bring down great floods of water in time of rain for, desert as the valley is, it has its times of rain, and when it does rain it rains fast and furious. These washes are curious channels, all dry now. It is common to find them not more than two or three feet wide on top and twenty or thirty feet deep, and sometimes you find them two or three hundred feet wide and nearly as deep. The banks of all the streams and washes stand very straight up and down, and the same is true of many of the mountainsides. These are perfectly wonderful in their formation.

On either side of the valley vertical mountain walls rise for hundreds of feet in the footslopes, then slope back for a distance and rise again as much more, and so like stories in great building, each one smaller than the one below it. It would seem as if the whole valley had dropped down bodily from the country around. Numerous pyramids and great monoliths have been separated from the main ranges and stand out like sentinels in various parts of the valley. What seems as strange as anything is that these tall, needle-like monuments, which run up for hundreds of feet as slender in their proportions as Bunker Hill Monument, are composed almost entirely of clay, frequently having a cap of sandstone projecting out beyond the clay foundations.

There is plenty of coal about the valley; some of the veins are said to give 17 feet in thickness of hard coal. There is a theory that the whole valley has been brought to its present shape by the burning out of the coal fields. It is certain that the coal is on fire in certain places now, and that the whole country shows evidence of volcanic action.



This sketch map of the D&RGW's Sevier Valley Railway route between Green River and Provo was drawn by Hodgman in a letter dated Thursday, July 7, 1881, written to his wife Flora from his camp near the mouth of Horse Creek, where it empties into the Price River. (Western Michigan University History collection)

CHAPTER V
INTO THE DESERT

My last left our party in camp on Price River in the northern part of Castle Valley. On our way we had passed several Mormon settlements. These were located on Ferrons, Cottonwood, and Huntington Creeks. The settlers were mostly foreigners, the Danes predominating. Their dwellings are of the rudest description, made of cottonwood logs covered with brush, hay and earth for roofing. some have floors and some do not. Wherever there is a settler there is an irrigating ditch, for no crop can be raised without irrigation, and this, of course, confines the settlements to the vicinity of the streams. The streams are small when they leave the mountains, except in time of freshets, and get smaller as they go until they dry up or sink away entirely.

The irrigation of any considerable amount of the land would take the whole of the water in the summer, for which reason the greater part of the valley must always remain a desert. A judicious system of dams and reservoirs along the streams and washes to store up the freshet waters for use in time of need would largely increase the amount of tillable land. It will be an expensive job, but it is one that will have to be resorted to in this whole country to make agricultural States. The soil is naturally rich, but is for the most part thoroughly impregnated with alkaline salts. In many places water will dissolve it as readily as it will sugar or salt.

A little passing shower starts the surface running in a liquid mass down the washes. It does not go far at a time but dries up again, leaving a hard crust wherever a pool has stood. When such land as this is cultivated and irrigated a man would mire in it as quickly as in a Michigan bog. I do not know whether the alkali in the soil affects the crops injuriously or not. Settlers raise large crops of wheat, oats, barley and potatoes. Corn that I have seen has not amounted to much. Potatoes are very fine, equal to the best from the Grand Traverse region.

It would be a waste of time and means to sow plaster anywhere in Castle Valley or its vicinity as the soil is full of it. Shining crystals of gypsum can be picked up almost anywhere, and the soil also carries a quantity of salt with it.

We struck the Price River a dozen miles below the farthest settlement. The first few days were spent by Davis and myself in horseback rides down the river and adjacent valleys looking for a practicable route for the railroad, which is to reach from Denver to Salt Lake City. Another party was already in the mountains between us and Salt Lake trying to get a line over them by way of the Spanish pass, but they were stuck in the snow six feet deep while we were on bare ground and in warm spring weather.

We found a curious country. The Price River rises in the Wasatch Mountains, southeast of Salt Lake City, and runs in a southeasterly course, crossing Castle Valley in its northern part. A few miles below our camp it strikes the base of Cedar Mountain and, making a broad sweep to the southward, swings around the mountain and runs out of the valley in a northeasterly direction through the Book Cliffs, emptying into the Green River whenever there is enough water in it to reach so far.

The Book Cliffs are a range of mountains from 7,000 to 12,000 feet high, running east and west, and forming a connecting link between the Wasatch Mountains and the Rockies in Colorado. The Price runs for a hundred miles or so nearly parallel with the range at a distance of from three to ten miles to the southward. On the side toward the valley the cliffs break down with the steepest of slopes and raggedest outlines imaginable. Wherever one of these mountains juts out into the valley it is cut down with a vertical, smooth wall anywhere from 200 to 2,000 feet high, in which every stratum of its structure stands out in parallel lines and varied colors like many tinted leaves in some great book. On the face of one of these great walls at about 9 o'clock in the morning one can read in the shadows the word BOOK in great letters twenty feet high a thousand feet above the valley. The two first and last show as plainly as on the printed page, the third is more obscure. They are made by water trickling in the channels on the cliff side and are to be seen from a certain direction and at a time when the sun is in such a direction as to light up the rest of the cliff and throw them in the shadow. Between the river and the cliffs are a number of ranges, foothills or ridges which on the river side break down vertically a distance of 200 to 400 feet and then slope gently away to the mountains.

These ridges are from a mile to two miles apart, and when viewed endwise from some mountain height which overlooks them present the appearance of the teeth of an immense rip saw. The traveler in crossing these ridges from the mountain side seems to be passing over a smooth and comparatively level country when suddenly, before he is aware of it, the land drops away at his very feet and away down below him he sees the level land stretching on again. Then he must make a detour till he can find a wash down which he can descend to the next level and pursue his journey, when the same thing is repeated time after time till the last ridge is passed.

We soon found in traversing these valleys and ridges how it was that those great monuments were formed, and saw numbers of them in the process of formation. They are simply cut off from these ridges by the winds and

trickling streams of water and left standing, while the rest of the ridge is worn away from them and they are thus left standing alone. They are almost invariably protected on the top by a cap of hard sandstone which projects out over the sides and often take on fantastic forms. In one place we found two or three of these monuments near each other with caps of sandstone, which from the direction of our line just opposite to them looked like three great turtles. We called the place "Turtle Point." These monuments were at least 200 feet high and the ridge from which they had been cut out was worn back a quarter of a mile.

We found old craters of extinct volcanoes, and melted rocks and scoria, lava, volcanic ashes in great heaps, and in places we found great numbers of beautifully colored pebbles polished as smoothly as could be done by the finest lapidary. These pebbles are of all colors and size, from a pinhead to a large apple, and their fine polish is remarkable. No jeweler could improve upon it. The polishing is evidently done by the winds and flying dust and sand, for the winds blow high and hot and dry here a good portion of the year.

And out here, away from all other signs of civilization, we found flock after flock of sheep grazing on the scanty grass and herbage near the base of the mountains. It was difficult to see what they found to eat, but they seemed in good condition. They are in flocks of about 2,000 each, watched by a shepherd and his dogs who follow them from place to place. There were about 50,000 sheep in the valley there, mostly owned by the Provo "Co-ops" and one or two other men.

These sheep are kept in the mountains in the summer when the grass is plenty, sweet and rich. When the winter approaches they are driven into the valley to stay till about the first of May, when they are taken out to the shearing and return to the mountains. Large numbers of cattle are also driven into the Castle Valley to winter. They have no protection and no food but what they pick for themselves and great numbers of them, as well as sheep, die off. We found the valleys lined with dead sheep and cattle. The air is so very dry here that for all there are so many carcasses lying about there is scarcely any stench, and we do not discover them by the sense of smell.

When the snow melts from the mountains the floods carry off the carcasses from the streams where they mostly lie. The living stock goes back to the mountains where they soon get fat enough for the shambles. It is remarkable how animals will fatten on the mountain grass. I have part of the carcass of a deer in my camp now on which the fat is over an inch thick on the ribs, next to the skin. The deer weighed over two hundred pounds after it was dressed and the head taken off.

Our party kept at work running the line down this region till the first of May, when we were recalled. I was put in charge of the construction of a twelve-mile division running up the Price River into the Wasatch mountains, and the rest of the party started off on another line toward Colorado. (*This chapter in the newspaper ends with the notation, "Clear Creek, Nov. 5, 1881," suggesting that Frank Hodgman's communications from the field were probably prepared somewhat later from diary entries made day by day. No information is presently available as to the actual dates of the newspaper issues in which his stories were published. —editor*)

Hodgman executed this watercolor painting, entitled "F. Hodgman's Camp, Castle Valley, Utah, 1881," on location. It is now owned by his great granddaughter, Phyllis Mohney.

CHAPTER VI
THE IMPERILED TRANSIT

"Help! Help! Kill the damn Jack! Whoa, there! Get out! Help! Help!"

Such were the shouts which, mingled with the loud brayings of a Jackass, awoke a party of surveyors about midnight one night the last of April in 1881. They were encamped near the mouth of the Grassy Trail Creek in eastern Utah, at the foot of a rocky cliff which towered several hundred feet above them. The party, under Frank P. Davis as chief, had been for a couple of months engaged in running lines in the vicinity of the Price River for the Utah extension of the Denver and Rio Grande railroad. They were 150 miles from their base of supplies in a wild, uninhabitable region. Vague rumors of an Indian war had been brought to camp by the company's couriers, and it was not far to the reservation of the White River Utes from whom an uprising was expected.

Davis had gone that day to the camp of Major Hurd twenty miles or so away and was not expected back until the next day. So when the midnight uproar and his cries for help brought half the party out of their blankets and caused the other half to cover their heads and crawl deeper into them, the first thought of all was Indians. It was not Indians, however, but a less serious matter which never fails to call a smile to the face of any of the party, except its chief, whenever it is mentioned.

The party had with them one of Major Hurd's donkeys which carried the stakes to be driven along the line, and a very useful animal he was, too. The boys called him Beecher in honor of the eminent divine*(Henry Ward Beecher, a noted clergyman of the era)*. When Davis arrived at Major Hurd's camp he found a large force of men there ready to begin work on the grade. Nothing could be done till an engineer could reach there to take charge of and lay out the work for them. Orders were given to Davis to return immediately to his camp and send F. Hodgman over to take charge of the work. A fine transit instrument was packed on the back of Beecher's mate and, thus equipped, Davis started back for camp. Beecher sniffed the coming cavalcade from afar and on their approach set up a most unearthly braying. When the party tumbled out they found the two donkeys charging all over camp, up and down the bluff, over the tent ropes, and Davis on horseback charging after them trying to part the donkeys and save the transit. The boys took in the situation at a glance and very soon rescued the instrument from its perilous ride.

Such was the manner in which the orders came for me to leave the party with whom I had come into this wild country and head a party of my own. Next morning "Texas Bill," the teamster, tackled four sorry looking mules to a Schuttler wagon and loading up my traps we started on the back trail for the crossing of the Price. The road ran up the Grassy Trail Creek which for a half mile is a little stream that a boy could jump except where it is expanded into small ponds by the dams of the beavers.

Along its banks are scattering cottonwood trees, many of them lying prone on the ground, cut off by the industrious fellows, the beavers. It is a little difficult for a stranger to their habits to understand why they cut down so many trees, as a very large portion of them are not touched by the beavers after they are felled. In some places where the timber stood thickly enough to admit of it the fallen trees lie scattered around like Michigan fallow.

They cut trees down having a diameter as large as 30 inches. I have picked up chips made by them which are four inches long, two inches wide and a quarter of an inch thick with the edges cut as clean and smoothly as with the woodman's axe.

Now and then as we passed along the streams near sunset a splash would be heard in the water and on going to the bank we would find a smooth wet path from the top of the bank to the water. It was a beaver slide and the splash we heard was made by the animal when he slid down it into the water. Less than a mile from camp we came to some springs which supply the stream with all the water it has now and which have supplied the camp for the past fortnight. The water oozes up in the bed of the creek and looks very pure and clear. When we drink it we discover a slightly peculiar taste, as though there might be a little soap in it. There is no different water within a dozen miles and we drink it from necessity and besides, it is cool and has no very bad taste, but it affects us very much as would a dose of Epsom salts and we suspect that the water contains not a little Sulphate of Magnesia in solution. The men have drank this water for the last two weeks and are a good deal out of health in consequence. We pass beyond the springs, following an open valley a quarter of a mile wide through which the dry bed of the stream goes winding back and forth from side to side, with now and then a few lone cottonwoods which have escaped the beavers, standing on the banks. The bluffs rise sharply up a few hundred feet on either side, their red monotony of color relieved here and there by a stunted cedar or pinon pine.

Now and then we pass a "wash" with rugged shelves of rock jutting out and bearing mute witness of the dashing waterfalls and roaring torrents which pass over them when there is water running in the now dry bed. And here the bluffs come close together at a sharp bend in the valley, the "Fiddler's Elbow," and along either side of the valley are strewn long windrows of driftwood fifty feet above the dry bed of the stream

There has evidently been a big torrent here sometime, and the like may come again any year. Woe be to the railroad swept by such a torrent as that must have been. Here is a place where the rocks are lying in rounded lumps as they have cooled and hardened from a state of fusion. Some are like a walnut and some as big as a barrel, but all showing unmistakably that they have been melted and cooled in that shape. They have no corners and are not worn or eroded as by water.

Yonder is a cliff with a layer of rock twenty feet thick in which we can plainly see these rounded rocks sticking as if they had been fired there like so many balls from a cannon. Many of them are geodes, their cavities lined with shining crystals which we expose to view as we crack them open. As we go on up the stream we strike a wagon road along the old Spanish Trail followed by Albert Sidney Johnston's army years ago when the Mormons say they and the Lord drove them out of the country.

Presently the bed of the stream has risen till we are nearly on the level with the tops of the bluffs we have been riding between. The Book Cliffs, great white-capped mountains, stand boldly out to greet us on the right five of six miles away, and the Cedar mountains face them as far away to the left. Right in front of us and fifty miles away the grim Wasatch range completes the triangle of mountain ranges which enclose the wonderful Castle Valley.

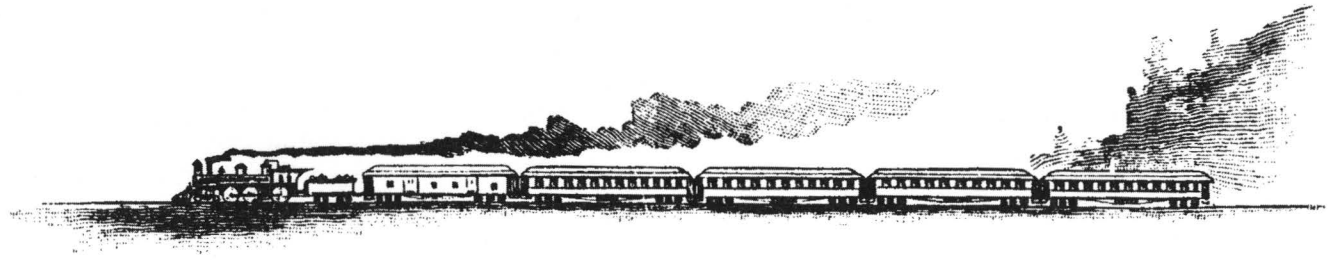
Yonder to the north is a chasm opening into the heart of the Book Cliffs. It is the Soldier pass and canyon and just beyond the canyon is Emma Park where the sheep have been driven out of Castle Valley for the shearing. Just to the left of Soldier Canyon another opening is seen in the mountains. No one seems to know anything about it. Still farther to the left past the corner of the triangle of the mountains we see a rent in the Wasatch range. A spur of the mountain stands out across its mouth with an immense rocky column standing like a lone sentinel over the valley. It looks like a great box piled on top of several smaller ones which stand on end one above the other. We can only guess at its size. It is 30 miles away and stands a thousand feet or more above the valley. The top is so much larger than the base that it seems as if it must topple over with the first heavy wind.

The mountain spur on whose point it stands is a vertical cliff on the side facing the valley and 1,000 to 3,000 feet above it. A talus of loose rocks lies at its foot but is hidden from our sight by the trees between. The parti-colored strata of rocks stretch away like ribbons, one above the other. Someone detects a likeness to a steamboat and calls the place Steamboat Point.

Now we leave the old Spanish Trail, and sticking to the left follow our line of stakes over a gentle divide into the valley of the Price again. The ground seems as smooth as a prairie, with no vegetation but cactus plants with dwarfed and stunted sage and grease brush in places and occasionally a patch of the salt "sage." This last is a small shrub growing from one to two feet high with a small whitish, fleshy leaf which is eaten with great avidity by cattle and sheep and we notice the horses and mules bite at it in passing. Here and there we come to a network of small washes—fissures cut in the ground by streams of water in the wet season, and have to make a long detour to pass them. They are dry now. Their walls stand for the most part straight up and down and the earth is dry and hard so that you can stand on the very edge without fear of its caving in.

Here is one you can step across, but it is twenty feet deep. The wagon must go around, but we will step across and take a bee line for those tents we can see away yonder by those two lone cottonwoods. The ground is smooth as a floor and as soon as we have passed these small washes we shall have plain sailing and perhaps get a shot at a deer or jack rabbit. The sun is sloping toward the west and thousands of sparkling diamonds are glistening in its rays. We pick up the finest one we can see and it is only a crystal of gypsum, clear as glass, which has reflected the sun's rays in our eyes. The earth is full of them. We fill out pockets and push along. But hold! what is this, a chasm 200 feet deep opening at our feet without a minute's warning? Ten rods away it all seemed smooth ahead, and here is a chasm three or four hundred feet wide and half as deep. It is only a wash like the smaller ones we jumped, except for size. We follow along its edge seeking a place to descend into its bottom, which is smooth and level except as it descends toward the river.

The edges of the wash are nicked here and there by great cracks which we jump as we go. Here are two of them which have cut off a column from the side, leaving an immense chimney standing out alone. There are a dozen others in all stages of formation. The surface here is sandstone, under that is a soft clay rock which disintegrates and dissolves away when exposed to the weather. Now we have found a place where by careful stepping we can descend into the wash, and an hour's walk along its level bottom brings us to the camp.



"Beneath The Moaning Pines I Am Sheltered In My Tent" is the title given to this scene Hodgman sketched of his camp along the Price River near present day Kyune, Utah. In 1898 it was used to illustrate a book of poems he had written. (Hodgman Family collection)

CHAPTER VII
MORMON CONTRACTORS

It was the 1st of May, 1881, that I came once more to the Price River at the point where our party had first begun work on the location of the line for the new railroad over a month before. Then our party and a few scattering shepherds were the only people in all that country for miles around. Now it was alive with men. Major Hurd, the resident engineer in charge of all work from the Wasatch Mountains to Colorado, had his camp on the spot where our tents had stood, while down the river at the crossing of the line a large number of contractors with nearly 500 men were on the ground waiting impatiently for work. They had been out over the proposed route of the railroad a month before with the chief engineer and had taken each one so many miles of road to grade during the summer. These were to be assigned them one or more miles in a place wherever the resident engineer saw fit to place them. They were on hand now with their men waiting for work, and no work ready.

I was given a tent, a transit, a level, a hatchet, a tape and a Dutchman and told to go and lay out work and boss the business. I had no provisions, no cook, no stationery—a big job on my hands and insufficient help. In place of the lacking articles I had some magnificent promises of what I was to have when supplies could be got to me. In the meantime I must board with the contractors and get help of them to assist in laying out the work. They were for the most part Danes, and all Mormons. Each contractor was assigned a mile or half mile of work and moved immediately to the ground and fixed up their camps. I pitched my tent near one named Jacobsen, with whom I was to take my meals.

The ground was now very dry and soon was covered with a layer of fine penetrating dust wherever it was traveled that covered and got into everything. Jacobsen's people went to the foothills with their teams and brought flat slabs of stone with which they made a floor.

Stakes were driven into the ground and boards laid upon them for tables. The valley was scoured for little cottonwoods which were stood upon end and covered with brush, making a sort of bower for a dining room. There were two young women in the party who did the cooking for the crowd and were not very good either. This was a "co-op" outfit. Every man furnished his own team and tools, bore his share of the expenses, and shared the profits or loss.

Each one had a covered wagon in which he rolled up in his blankets and slept at night. The girls were supposed to have a wagon to themselves, but they were in no great danger from wild animals. The men were a lively set and soon had the dirt rapidly piling up on the grade. At night they made the air ring with their songs and music.

The snow was now melting off from the mountains and the river rising rapidly. All night long we would hear the boom, boom, boom of the falling earth as it tumbled into the river in great lumps of tons in weight as the rushing torrent undermined it. The banks of the stream had been lined with the carcasses of dead cattle and sheep which had perished in the preceding hard winter. It had been a terrible trial to us to have to go to the river for the water we used, and know that only a few rods away a dead animal was rotting in the margin of the waters and no escape from it. But now the rising torrent swept them all away toward the ocean, and we could go and get our pail of water from the stream with the consolation of knowing that it contained no soakings of putrefying carcasses and not more than half of its bulk of river mud. The last was easily disposed of. Cactus plants were growing all around, and a single leaf cut in two and put in the pail would carry all the sediment to the bottom and leave the water clear and pure in a few minutes. The thick viscid juice which exuded from the leaf caught every particle of the sediment and held it together in the bottom of the pail. The water as it came from the river was cold as one would wish to drink, unpleasantly so near the mountain, but getting warmer the farther it flowed.

Jacobsen's party numbered about fifty young and middle-aged men who worked, as I said before, on the co-operative plan, he being chosen by common consent as the leader and boss. When I first sat down to a meal at his table I was surprised to hear him call on one of the men to ask a blessing, which was done without any hesitation, and I learned this party never partook of meal without some one of the number first asking for the Divine blessing. The food consisted of bread, bacon, beans, rice and dried apple. This latter they always spoke of as fruit. When I would have called for apple sauce they asked for fruit. When provisions got low as they sometimes would, it was not uncommon for them to live on bread and dried apples.

Their teams were mostly of horses, though there were a few mules in the outfit. The horses were hardy, wiry animals of about ten hundred pounds weight and were hard working and well cared for. They always looked in good condition. This party permitted no swearing. They understood their business and, it is perhaps needless to add, earned more money per capita than any other outfit on the line.

They were exceptional men, especially in the matter of swearing. Mormons are peculiar about that. We soon learned that if we wanted to find whether or not a man was a Mormon we only to wait till we heard him swear. If he said "by hell" we had a sure thing of it, for that is their standard oath and the recognized test. "Son of a bitch" is a great favorite with them as an expletive. One day a whirlwind came along and as the cook of one of the parties related the matter: "The son of a bitch of a whirlwind came into his tent and raised hell and turned round and went out again." Another party had a cow with them to furnish milk, but as her owner said, "The son of a bitch of a cow ran off and they had to do without."

I had been engaged only three days on construction of the road at this point when I was astonished to see Davis' entire party, whom I supposed to be locating line a score of miles away, coming into Major Hurd's camp. That night I got orders to abandon the work at that place and take all the contractors and men up the river about eight miles, where a new line would be started as soon as the surveying parties could locate it.

The next day I was there and found the Chief Engineer on the ground and two locating parties at work running from the river in opposite directions. A twelve-mile division extending from the river crossing up the river several miles into the Price Canyon of the Wasatch mountains was assigned to my charge and the men once more assigned their work.

It was the first week in May that work began on the new line. Instead of following down the Price river to the Green and thence across to the Grand as at first contemplated, it was decided to cross the Price river some eight miles higher upstream and, swinging to the southward, flank the Cedar mountains and wind over the San Rafael swells to reach the Green river some fifteen or twenty miles lower down. By this route the Cedar Mesa and Book Cliff canyons of the Price and the canyon of the Green would be avoided and in their place there would be the San Rafael summit to surmount.

What these canyons contained no one seemed to know. Parties sent out to explore united with the stockmen in saying that they were impassable. We found no insurmountable obstacles so far was we had gone in their direction, but the great trouble was just ahead.

So the new line was started, Davis and his party starting at the river and running their line to the eastward, and Hamilton's party starting at the same point and running in the opposite direction for the Soldier Pass of the Wasatch mountains. These towered up grim and snow crowned in front of us only six or eight miles away while the Book cliffs, with ragged sides, were only a little farther away to the right and the valley lay between. I pitched my tent on the bank of the river for a short stay. Later on, when the locating party had got the line located far enough, I would

move up to the middle of my division at the foot of the mountains.

It was dry, hot, and dusty and the water in the river rapidly rising, tearing down from the mountains in a roaring torrent. The graders continued to cross it until several teams and saddle horses were swept away to death in its raging waters. From that time forth the ford was known as Dead Horse Crossing.

Close to the river there was an abundance of sage brush, greasewood, and rabbit brush growing. The latter we gathered for beds. It has a small stem with great numbers of long, slim elastic branches. A layer of them a foot thick was as good as a spring bed. Farther away from the river all was dry and barren, and almost the only green thing growing was the cactus plants. They covered the ground in irregular patches for miles. Most of them had flat leaves about two inches in diameter and a quarter of an inch thick, one leaf growing out of another as they lay along the ground. Some were globular, as large as a sugar bowl. Others were about the size of a black walnut with the rind on. These latter grew in bunches or clumps, often as large as a bushel basket. All of them were covered with hard, sharp spines and inch or more long. They are so hard and sharp that I have several times had my foot pricked by them through the leather of a stout boot. Horses avoid them, choosing the open spaces between the beds of the plants, as the spines grow just high enough to prick the horse above the hoof.

A few weeks later all these cactus plants were in bloom, and the desert did indeed blossom like the rose. The blossoms look much like large double roses. Many were of a beautiful bright yellow color, others violet, scarlet, pink and all imaginable tints or shades between.

It was a glorious sight to see the broad desert decked out in such gorgeous array. Along the stream, and in the mountain glens, other most beautiful flowers were growing such as I had never seen before. There were dandelions whose leaves and blossoms looked like those at home but the flowers, instead of growing singly on a hollow stalk, grew by dozens in a branching stem. These and some wild sunflowers, and later in the season the wild asters, were the only flowers that bore a familiar look.

Animal life was not abundant. Little lizards like Michigan swifts were plenty, and ran in and out of the tents without fear of molestation. They would come in and climb up on a box, or perhaps upon your knee, and peer curiously around. If a fly was near they went for him. Sometimes one would climb to the very peak of the tent on the inside, and making a sudden spring, catch a fly as he came down to the ground. They did not seem to mind the fall but would scamper up again and repeat the operation. They were gentle, bright-eyed, fearless and harmless little fellows and had the run of the tents for the flies they caught.

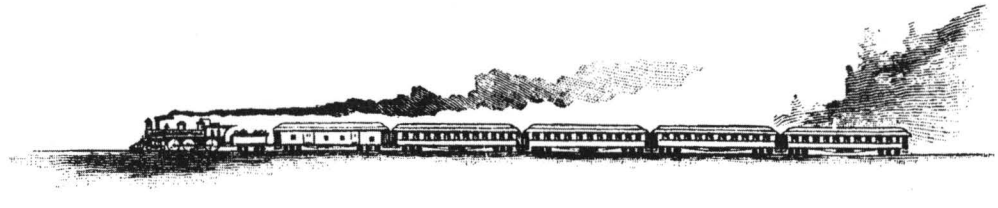
Here and there the prairie dogs had their mounds thrown up along the roadside. Where an embankment was thrown up by the graders it just delighted the little fellows to go in and burrow in the soft and yielding earth. They are not dogs at all, but like a woodchuck—the size of a large rat. It is said that you cannot shoot them so but what they will get into their hole before you reach them, but we repeatedly proved that they were not so smart and quick as a Remington or a Smith & Wesson. We never saw any of the rattlesnakes and owls that are said to abide with these little muskrats in other parts of the west.

Ravens were plenty, and buzzards sailed about circling like eagles in the blue sky. Occasionally an old gray-headed eagle would look down upon us from a crag as he watched for a jackrabbit or a "cottontail." In some places we saw flocks of bluejays that uttered notes like short ringing whistles entirely different from the note of our Michigan bluejay. For want of better food they lived on cedar berries and carrion. I shot some of them. They were of the same size and appearance of the bluejays at home, only they were of a darker blue and had no white upon them. There were also a few magpies in the cottonwoods. They are much like small-sized crows, but instead of being all black have broad white bands in their wings which make a very showy appearance when they fly.

Flies were plenty and troublesome, and occasionally a scorpion would put in an appearance. The first one I saw was crawling on Gillette's shirt front. They look as near like a small lobster as an insect can. They have a stinger on the extremity of the body that somewhat resembles the horn of a tomato worm. The scorpions that I saw were about two inches long with bodies about as thick as an ordinary slate pencil and somewhat flattened. The sting of the scorpion is said to be terribly painful but not ordinarily dangerous to human life. None of our party were stung by them and they were not thick enough to occasion us any trouble.

I staid a little more than a week in camp at Dead Horse Crossing, and then moved up the line about six miles to the foot of the mountains at the mouth of the upper canyon of the Price River.

Hard work and long walks were now the order of the day as half a thousand teams and men were busy piling up the earth and rock to make the road. In my next I will try and give you readers an idea of the manner in which railroads are built in this Western country.



CHAPTER VIII
WESTERN RAILROAD FINANCING AND CONSTRUCTION

In my last communication the types made me speak of the prairie dog as a little "muskrat." I used to get angry at such things, but experience of the printers' ways has taught me to pass them by with indifference and silence. I should do so now, only some of your readers would think the prairie dog was a little muskrat and others would think I did not know any better, so I hasten to say that what I wrote was "marmot" and not "muskrat."

There was another little animal that used to call on us occasionally in the desert which I did not mention: this was the horned toad. I do not know why this animal is called a toad, for it is not a toad and does not look like one except that is about the same size. It is a sort of lizard with a thicker body and shorter tail than the rest of the lizards and has several horn-like protuberances on its head and along its body. It is perfectly peaceable and harmless.

I said in my last I would try and give your readers an idea of the way railroads are built in Utah.

About the first thing in order here, as elsewhere, it is necessary to raise the means to work with, so somebody of an enterprising turn of mind who wants to make something starts a project for a railroad to run somewhere into the country. If he has some mineral locations it will naturally run by or near them. If not, it will go where he has a chance of getting some or make speculation of some kind. Others who are of a like mind join with him and a company is formed, officers elected, maps of the country made in the highest and most flattering style of the art, and perhaps a few miles of road built where it will pay well to operate it.

Then bonds are issued for million of dollars and the enterprising projector, who is now a prominent officer of the road, takes a trunk full of the bonds more or less and goes on a pleasure trip to Europe. When he gets there he shows the money lenders there what profitable investments the Union Pacific and Central Pacific railroads are and what dividends his road is now paying, and what magnificent prospects his road has ahead of it and how they can all become Goulds and Huntingtons and Stanfords. So he sells his bonds for the best price he can get, and has enough of them so he comes back with some millions of dollars to work with.

The officers, who are the principal stockholders, now vote themselves good big salaries, which they pay out of the money they have secured.

The next is to form a construction company. This is made up of the officers of the road. Then the construction company contracts to build the road for so many dollars, say $40,000 per mile, to be paid them by the railroad company when the track is ready for the ties, iron or rolling stock, as the case may be. The construction company then puts surveyors into the field who run lines in all sorts of directions to find the best route to the objective points, if the company happens to have one. This is frequently a pretty intricate affair when the road has to cross or climb mountain ranges, as it must in all the through routes across the continent and most of the shorter roads in territories.

Close on the heel of the surveyors come the graders, in which they are almost to a man, Mormons. On the Denver and Rio Grande Western railroad leading Mormons went over the country with the Chief Engineer in advance of the surveyors, looking at the proposed routes, and took contracts for grading the entire line before a mile of it had been definitely located. Each one contracted with the construction company to grade so many miles of road, from ten to fifty each. They were to be paid so much per yard for the work, the amount varying with the character of the material and its distance from water and other supplies.

In that portion of the land in which the construction was under my charge 14 cents per yard was paid for scraper work, that is, for making the roadbed where the earth could be readily handled by plowing and scraping. Scrapers with tongues to them were almost exclusively used, and a skillful man with a scraper would leave the roadbed almost perfectly finished.

For material which had to be moved in carts and barrows 28 cents per yard was paid, for loose rock and cements 50 cents, for solid sandstone $1.25, and for granite, blue limestone and similar hard rocks $2.00 per yard was the price. The construction company thus "subbed" out the work by the yard at rates which left them a good profit. None of the work cost more than they received for it. There were several miles of work on my division that did not have over 4,000 yards of earthwork per mile, and all scraper work at that. There was no mile of work under my charge, which included the heaviest work in the Wasatch mountains, that cost $20,000.

Some of your readers may be interested in a little more of details of the work. In the first place, the locating engineer with his party goes over the ground and fixes the line of the road, driving stakes at every 100 feet on straight lines and 50 feet on curves. The construction engineer follows and sets stakes for the outer edge of the slopes, of excavation or embankment. These are set at every 100 foot station and as many places between them as there are changes in the direction or slope of the surface of the ground, in order to get an accurate measurement of the amount of earth to be taken out or filled in.

Then come the grubbers who, with axes and picks or grub-hoes, take out whatever trees or bushes there may

be within limits. It is astonishing how few good axemen there are in Utah. I saw only one good chopper there and he proved to be a boy who was born and brought up in Kalamazoo county and afterward worked in the Michigan and Wisconsin pineries. He worked awhile in my party and would do more work with an axe than any three Mormons I saw in that territory.

After the grubbers come the men with plows and scrapers. The plows used were mostly the Oliver Chilled, with now and then a Diamond Iron or a Moline plow. The plows are run into and among the rocks in a reckless fashion that breaks them to pieces freely. In all the cuts the earth or rock is taken out a foot below the grade of the roadbed and then filled to grade with gravel or other suitable material. In some places there are plenty of great boulders of solid rock which have to be blasted out, and in others the line cuts into the solid mountain itself.

When boulders are being blasted it is dangerous being near when the blasts are fired. This frequently is done at noon, or after work at night when the laborers are out of the way. The blasters will charge as many as they can in half a day and then fire them all at once, making the noise like a park of artillery. On one occasion a rock as large as a bushel basket was thrown into my camp from a blast forty rods away. Fortunately, we saw it coming and got out of the way so no harm was done, but we were kept dodging behind trees for a fortnight while at that camp, by the flying rocks. We always had warning when a blast was to be fired, and got into a place of safety.

Sometimes the point of a hill has to be loosened up. A hole just be big enough for a man to work in will be driven in just below grade to about the center of the hill, then branches like a T will be run out from the end of the drift. From one to one-hundred kegs of power are then put into the branches and connected together, a fuse connecting with it and running out of the hole. The drift is then filled up and tightly packed with earth and rocks, and at a convenient time the mine is fired. If the powder has been properly placed and the right amount used, the whole superincumbent earth or rocks will be lifted up and crumbled, with very little noise and no scattering of debris. If too much powder is used it will burst out at the weakest place, scattering the earth and rocks to a great distance and leaving a portion of the hill undisturbed. And so, if too little is used or it is not properly located it will not do the work effectually, the design of which is to loosen and break up the earth and rocks so that it can be handled with plow and scraper.

When the grading is nearly done the engineer has to go over it the second time, setting new stakes for the center line and giving grade heights, after which the finishing gang go over and give it the last touches, bringing the surface up true and even and trimming the sides to the proper width and slope, when it is ready for the ties and track.

The engineer each month measures all the work done during the month, classifying it and reporting the amount to headquarters, and according to his report the contractors are paid. Between the company, who look out sharply that the engineer's estimates are not too large, and the contractors, who want them as large as possible, the engineer has but little chance to be remiss in his duty and sometimes he gets a scorching on both sides.

As will be seen by the manner in which the road was built, it was no great object for the construction company to shorten the line of the road. They were making a profit of five to twenty thousand or more dollars per mile, and the more miles built why the more dollars it was for them. When the money ran low they only needed to sell more bonds and get a new supply.

In running through the country as we did it almost necessarily followed that minerals were found in places along the line. All that promised to be of value the company "froze to" and the claims were entered, not in the name of the company but in the individual names of the officers, thus showing evidence of thrift and wisdom on their part. While in their employ I located about thirty coal mines, some of them very rich and valuable, but not a claim was filed in the company name.

A few claims were located by outsiders, but it was of little use for them. The company would buy such as it wanted, on its owns terms, or if the owner refused to sell would freeze him out by methods only too well known by railroad companies and compel him to sell at such price as they chose to pay, or have his property lie idle and useless on his hands. Some of those fellows are making money in this way.

CHAPTER IX
CASTLE GATE

My last communication left me at the foot on the east slope of the Wasatch mountains, at the mouth of the Price River canyon, in charge of the construction of a twelve-mile division of the railroad. At the back side of my tent the Price River, then at its highest, was roaring past with a fall of a hundred feet per mile. Just in front was the winding row of stakes which showed where the line of the road was located, and close beyond them one of the curious two-story mountains so common in that vicinity. First, at the bottom, was a very steep slope of earth, loose rock and debris from the mountain, then a vertical cliff rising above it, the whole surmounted by the

comparatively level table land sparsely timbered with dwarf cedars and pinon pine. This table land was about 500 feet above the river.

There are numerous other mountains or mesas like it in the vicinity, all having the same general character: two stories high with vertical sides all around so that it was with great difficulty that any place could be found with slopes reaching near enough to the summit. Many of them could not be climbed at all. One of them, a mile from camp, thrust out into the valley a giant buttress, and I determined to climb it. After passing almost around it I found a receding slope by which I was enabled to reach within twenty feet of the upper edge of the cliff. Then, by carefully removing here and there a bit of loose rock for a foothold, and risking my neck at every step upward, I reached the table land above. Then I pushed forward to reach the great protruding buttress which jutted out into the valley half a mile away.

I did not succeed in getting out upon it. Just where it joined the main part of the cliff was a narrow ridge about a foot wide and twenty feet long, with the sides dropping vertically for more than 200 feet. Up through the recess thus formed, like a chimney on either side, the wind came rushing with nearly force enough to carry a person from his feet, and the air was full of flying sand. Strangely enough, there was no wind in the valley below, and not but a few rods away, on the summit. I did not care to take the chances of crossing that slender bridge on the crumbling rock, and gave up the project.

Just across the valley was a monument rising up as high as the cliff on which I stood, as slim and graceful as the Bunker Hill monument, a quarter of a mile away from the cliff of which it once formed a part. It will be only a few years till this one at my feet will be cut away by the storms and these whirling winds from its supporting cliff, and add one more to the numerous monuments which stand like sentinels about the valley.

Upstream from my camp the river is closely hemmed in by the jagged mountains, which rise higher and higher as you ascend the stream. Steamboat Point is six miles away but it does not look to be more than one. We follow the line of stakes almost to the foot of its immense vertical walls, with the particolored strata of rocks stretching away like immense ribbons in the broad sunlight, and then swinging around it to the left we find the grand old mountain takes on at once a form of marvelous beauty. The varied colored rocks now take the form of some immense buildings of state, with ornament cornices, porticos, battlements, friezes and statuary, and above all rises the immense pillar which had been our landmark so many miles away. The top is so much larger than the base that it seems as though the first storm must topple it over, but there it stands, and just below it are others like it, resting against the mountainside where they have apparently slid down from their former vantage ground.

The canyon closes in beyond, but here my division ends. Two months were spent at work on this division. Sundays were the only spare time we had, and those were generally spent rambling around the hills within easy reach from camp. We picked up beautiful little arrowheads of chalcedony, fragments of pottery, splinters and chips of agate and smoky topaz, and now and then a bit of coal or a pebble of float silver ore, and in one case a solitary lump of copper ore. We never found the ledge from which they came although we did some careful searching. Judging from the local formation they evidently came from a distance. In some places we found little circular bits of stone or pottery as big over as a cent and an eighth of an inch thick. Some were ornamented in colors, and some not. Some had holes in the middle making them look like a diminutive grindstone. We found most beautiful wild blossoms in the ravines and along the river banks and gathered the seeds to send to our friends at home. 1881

By the first of July the grading on my first division was done and I was ordered further up the canyon to take charge of another. We got a team of one of the contractors and moved up the canyon, following sometimes along the grade and sometimes swinging a half a mile away to go around a wash that we could not cross. We crossed back and forth over the river, which has now fallen so that there is less danger in stemming its whirling torrent. Eight miles brings us to Willow Creek, where the last of the graders are encamped. It is terribly wild and rugged here,, and we can go no farther with the team.

Here and there we see a black looking stratum of rock with a hole piercing it and a loose pile of earth and rubbish scattered down the mountainside from the hole. There are little monuments built up of loose flat stones, and besides them a little piece of board stuck up with a paper tacked to it. Coal has been found, and those holes are the work of the prospectors and those papers the notices of their claims.

We wait at Willow Creek till we can get a pack train of burros to take us through the canyon, eight miles further, to Horse Creek. The line is not all located yet and no train has ever been through the canyon. After a delay of a couple of days the burros come, goods are packed, and we are off again, clambering along the steep mountainsides, crossing the river on logs that the engineers had felled across the streams, and scrambling through the dwarf oak brush that obstruct the way on every hand. The stiff hard brushes tear the sacks in which our provisions are stored, and beans and dried apples are scattered along the roads as the burros force their way through the grubs. I have a cook now in my party, and a square, four-holed cookstove made of sheet iron. The stove catches on the bushes and occasionally the burro takes a run with it till it is battered almost past recognition.

And now, just before sunset, we have come to the end of the canyon. An immense wall of rock stands right across the way and bars our further progress. But no, the river has found a way around it and so do we, but we pause in awe to look at that immense rock, "The Castle Gate." It is over 450 feet high, nearly 1,000 feet long and

twenty or thirty feet wide, and stands there buttressed against the mountain on the one side and swinging out across the valley like a gate, to bar the traveler's way. It is well named the "Castle Gate."

It seems almost impossible that so thin a mass of rock should stand at such a height, looking as though a breath of wind would bring it crashing into the valley. *(From Mr. Hodgman's narrative it may be inferred that the Castle Gate rock formation is located in the vicinity of Horse Creek. This is not the case, for the gateway along the Price River is about two miles west of the mouth of Willow Creek and approximately 4½ miles downstream (east) from the point where Horse Creek empties into the Price.—editor)*

We encamped for the night a short distance up the valley from this point with Boutelle, the locating engineer. Leaving my party next morning to get along with the pack train the best way they could I went on alone to select a camping place. From here on there was no valley, only the river rushing along at the foot of high mountains which sloped to the very water's edge. The dwarf oaks and service berry bushes were thick, and a more plentiful growth of firs, cedars and red pine made its appearance. Occasionally near the river there was a large pine tree standing with the bark all torn from it for a distance of six or eight feet from the ground, and in the solid wood were rows of scratches a quarter of an inch deep where the grizzlies or mountain lions had used the tree for a scratching post. It was only a few day before that Boutelle's party had received a friendly visit from a large bear, and I kept a good lookout for him as I went along.

About noon I came to a spot where the valley widened out, making a little plateau of an acre or so on which was growing a beautiful grove of red pines, firs and cedars. It was the first grove of large timber I had seen in Utah, and the finest one I saw while there. Here I determined to pitch my camp, near the mouth of Horse Creek. It was near night before the pack train got there, and more than one of the luckless burros had caught a roll with his pack down the mountainside.

In the grove of evergreens was a little open plat of smooth, grassy ground of two or three square rods bounded on the north by the river. The river bank was vertical and the water four to six feet below the top of the bank. A hundred feet back the mountain rose up grim and bare save where its sides were dotted here and there with clumps of scrubby dwarf oaks, or where a fringe of evergreens followed up the path of some dark and lonely ravine.

Between the river and the mountain a few red pines rose up slim and graceful a hundred and fifty or more feet toward the sky. Smaller trees of fir, spruce, red cedar and cottonwood filled up the spaces between, with all the various shades of green from the light silvery green of the young balsam to the dense, almost black masses of the spruce and pine.

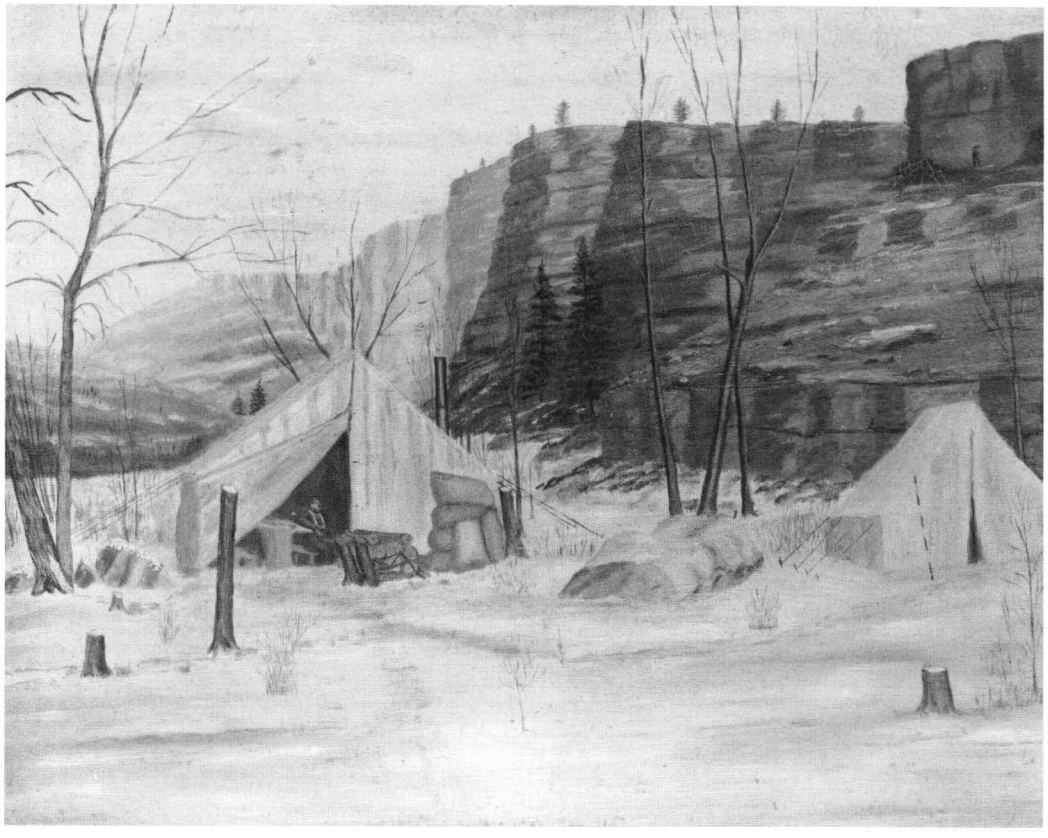
In that little grassy glade I pitched my tent, with barely room for a walk between it and the river bank. The river was low and went rushing along, its turbid waters flecked with bits of foam and dancing bubbles which overleaped and skipped around the boulders which broke the stream into a hundred whirling eddies. Now and then a stick came floating down, performing strange antics as it tumbled over one and another of the little cascades which followed each other in rapid succession. When the sun above the mountain tops peeped down through the branches of the grove and lighted up the shimmering water of the stream it was a beautiful, though lonely, spot. But when the night fell down around and nothing could be seen but the dim outline of those grim old mountain peaks against the sky, and the gentle moaning of the wind in the tops of the pines mingling with the swashing of the waters of the river was broken by the piercing wail of a catamount, it seemed almost terrible in its loneliness.

Then, too, there was something terribly monotonous to me in the everlasting rush and roar of the river. Day and night, week after week and month after month, its perpetual roar filled and pervaded everything with it ceaseless sound till it sometimes seemed as though I could endure it no longer. Sometimes it seemed as if the sounds of human voices and the cries of animals were mingled with its roar, and I often stopped short in a lonely walk along the mountainside to listen intently, for minutes at a time, to determine in my own mind whether the sound I heard came from the water below me, or was the wail of a child, the moan of a person in distress, or the distant scream of a mountain lion.

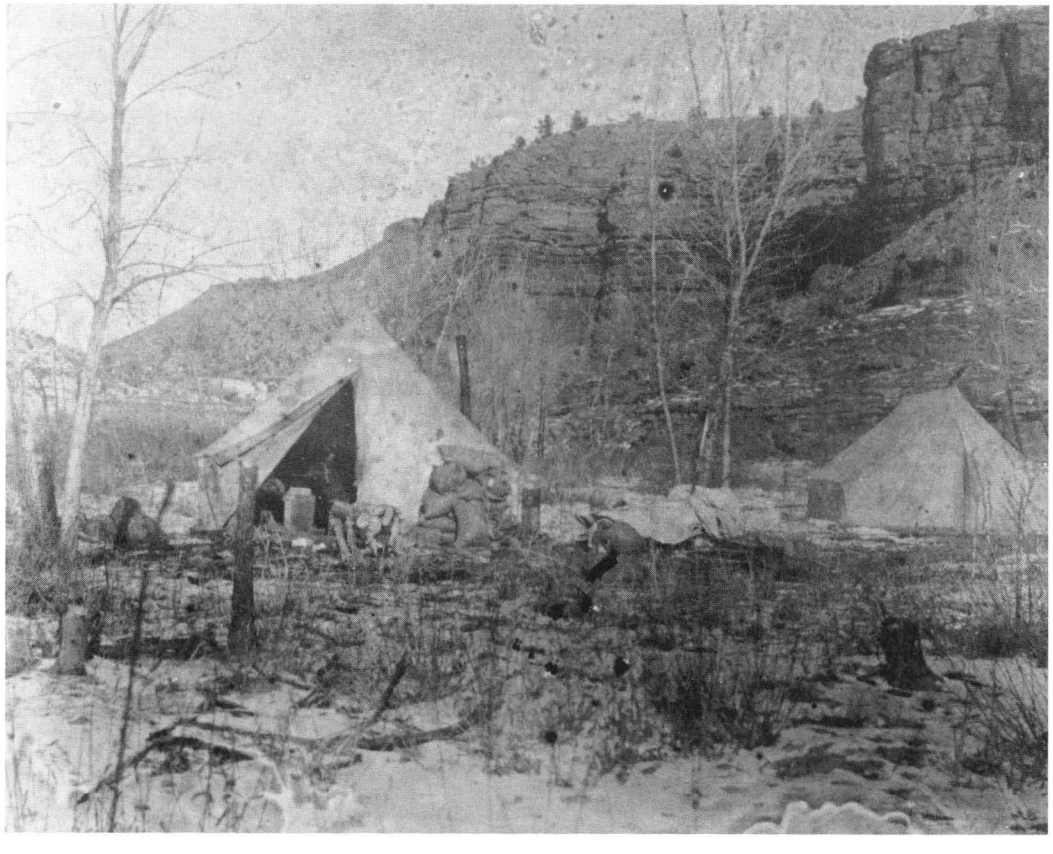
The pack train which had brought us up the canyon departed as soon as our goods were unloaded, and we were left alone till such a time as the contractors could reach this part of the line. In the meantime we were busy changing the line in places and sticking stakes for the men to work by when they should arrive. We had but one tent, so the cook built him a bower of branches for his kitchen and cook room.

We were overrun with little ground squirrels and pine squirrels, who were into everything and stole our provisions at a prodigious rate. This was a serious matter with us where it was so expensive and difficult to get provisions to us, so we spent our leisure hours in shooting them with pistols and bows and arrows. The cook became very expert with the bow and spent a good part of the time, when the rest of the party were out in the field, peppering away at the little thieves. The ground squirrels looked much like our chipmunks, only they were about twice as large and had tails very much shorter in proportion to their size. The pine squirrels were much smaller than our chipmunks but in their appearance were more like our red squirrel.

When one of them would sit on a knot with his tail waving over his back, nibbling a bit of stolen bread or chattering with his little voice at his strange visitors, he seemed like the tiniest mite of a red squirrel that ever was seen, and who ever saw such active nimble fellows. They are as



Here is the painting hanging on the wall in the photograph of Mr. Hodgman at the beginning of this article, along with the collodion wet-plate photo on which it was based. (Alice Martens collection)



much quicker and nimbler than any other squirrels that I ever saw, as they are smaller.

I had carried my Remington rifle with me from February till July, with only one chance to shoot at anything larger than a duck, so having an opportunity to dispose of it at a good round profit I let it go. But now game was abundant all around, and not a rifle in camp.

One morning as we were eating breakfast a fine, large buck stood upon the mountainside across the stream a hundred yards away and quietly watched us at our repast. When the meal was over I sent a ball from my revolver rattling among the rocks at his feet without disturbing him in the least. When he had satisfied his curiosity he leisurely went his way.

It was a week before the first contractor made his appearance at my camp, and nearly another week before he was able to get his outfit on to the line. When the men began to come it was not long till we had a goodly number there, and the mountains rang from morning till night with the sound of the exploding blasts. One party was at work directly across the stream from my camp, and at noon and tea time we were kept on the watch to avoid the flying rock. In blasting out the big boulders they aimed as far as possible to fire the blasts just after the workmen had quit for noon or night so they would be away and incur as little danger as possible, but those fellows threw many a shower of dirt and small pieces of rock into our camp, and once a rock as big as a bushel basket came sailing over among us.

Of course we always had warning and got behind a rock or big tree if we saw anything dangerous coming.

It was the 4th of July when I took charge of the work on this division, and the picking and scraping and blasting went merrily on till the middle of August, when I received orders to pack up and go over to Clear Creek and take charge of the work on the west slope of the mountains. This was considered the best position on the line for at Clear Creek were railroad connections with the outside world *(via the narrow-gauge Utah & Pleasant Valley Railway north to Springville and Provo, Utah—editor)*, and the company had there a storehouse well filled with provisions and there the mail came regularly every day.

To us fellows who, for six long months, had been away from all these things it was a blessing indeed, and we thanked our lucky stars that we were the ones chosen for that place. If our provisions gave out we could go to the storehouse and get more and not have to wait long days or weeks for a pack train to find its way over the mountains and canyons through the canyons to our camp. And when we got our provisions they were clean and fresh and not way-worn, mixed and dirty as they were before. But better than all, when the letters came from dear friends at home we should be pretty sure to get then without waiting for the weekly round of the company's rider.

You may be sure we set out for our new work with light hearts, and we did not walk, either. I had walked from Salina through the Salt Creek Pass over the mountains, up the long stretch from end to end of Castle Valley, down the Price River into the canyons of the Cedar mountains, up the Price again by Dead Horse Crossing, Steamboat Point and the Castle Gate through the canyons of the Wasatch till here we were at Horse Creek, only a mile and a half from the old Spanish Trail and eighteen miles from the Soldier Summit.

I had tramped hundred of miles through all that was dreary and desolate and all that was grand and beautiful along the road, and now I would have a ride. So I hired Mortensen with his light spring wagon to take us over the summit. Up we went through the Horse Creek Gorge, where the road was so rough and difficult that we were glad to ease the team and protect our own necks by walking over the roughest places. And now we are out of the canyon and strike a well-beaten road through a valley that seems wonderfully smooth and level when compared with that where we have been the past six weeks.

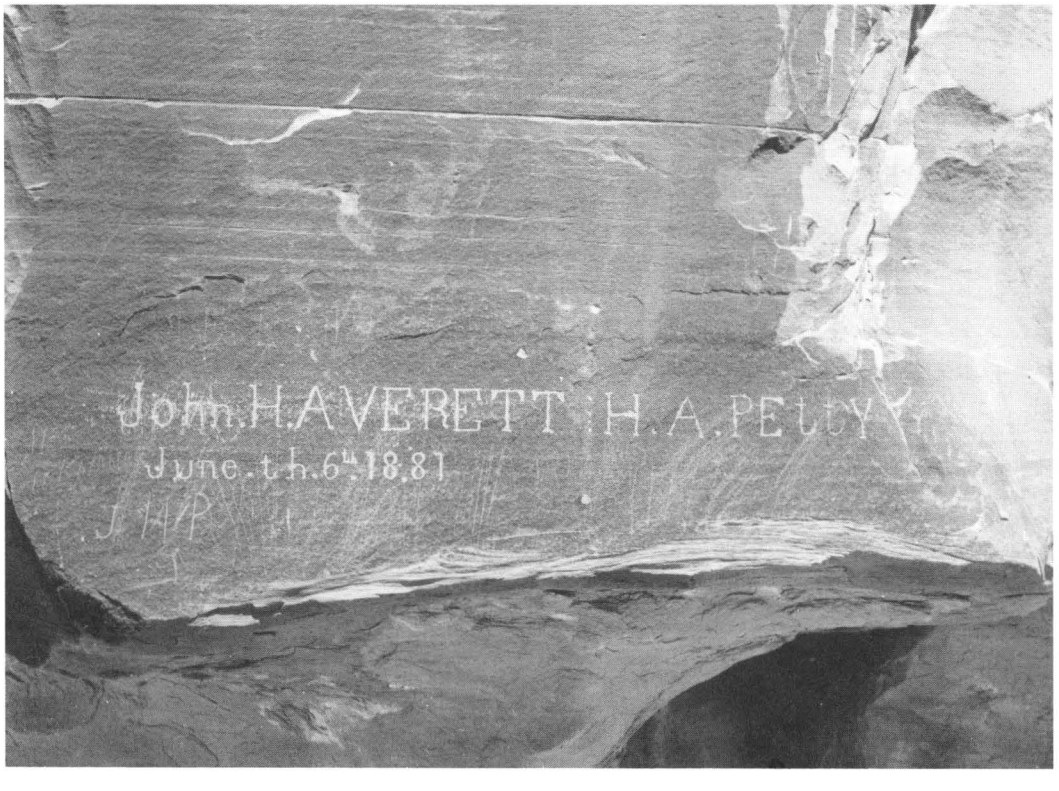
Just where we strike the road there is a log cabin and a corral, and there the Provo "co-ops" have a big flock of sheep. We push up the valley as straight as we can for the summit, but the road has to make many a turn and crook till here we are at Coyune *(Kyune)* Creek and right over beyond it is the Coyune hill, so steep that the team can only draw us a few rods at a time as we climb its rugged side. Bruin Point towers high into the air on our right, and a nameless mountain with a patch of snow still lingering on its top is at our left. We are over the hill and down the other side, and now we have come to the Price again.

The canyon is passed and its upper waters flow through a broader valley lined with willows that shelter a hare and the sage hen. We stop for dinner where we cross the stream and, while the horses are eating, amuse ourselves by popping away at the sage hen with our revolvers. A couple miles farther on we pass a saloon that some enterprising rum-seller has put up to supply the passing traveler with the "staff of life." There are no residences anywhere near here, but he catches the custom of the passing travelers. A little farther on we leave the valley of the Price, and passing over a gentle divide 8,000 feet above the sea we begin to descend upon the western slope. Soon we strike a little rill which, growing as it goes, occupies the bottom of a narrow valley which grows deeper, and the mountains on each side higher, as we follow it down. Four miles from the summit we find a clear and sparkling spring of ice cold water, and there we pitch our tent for the rest of the summer.

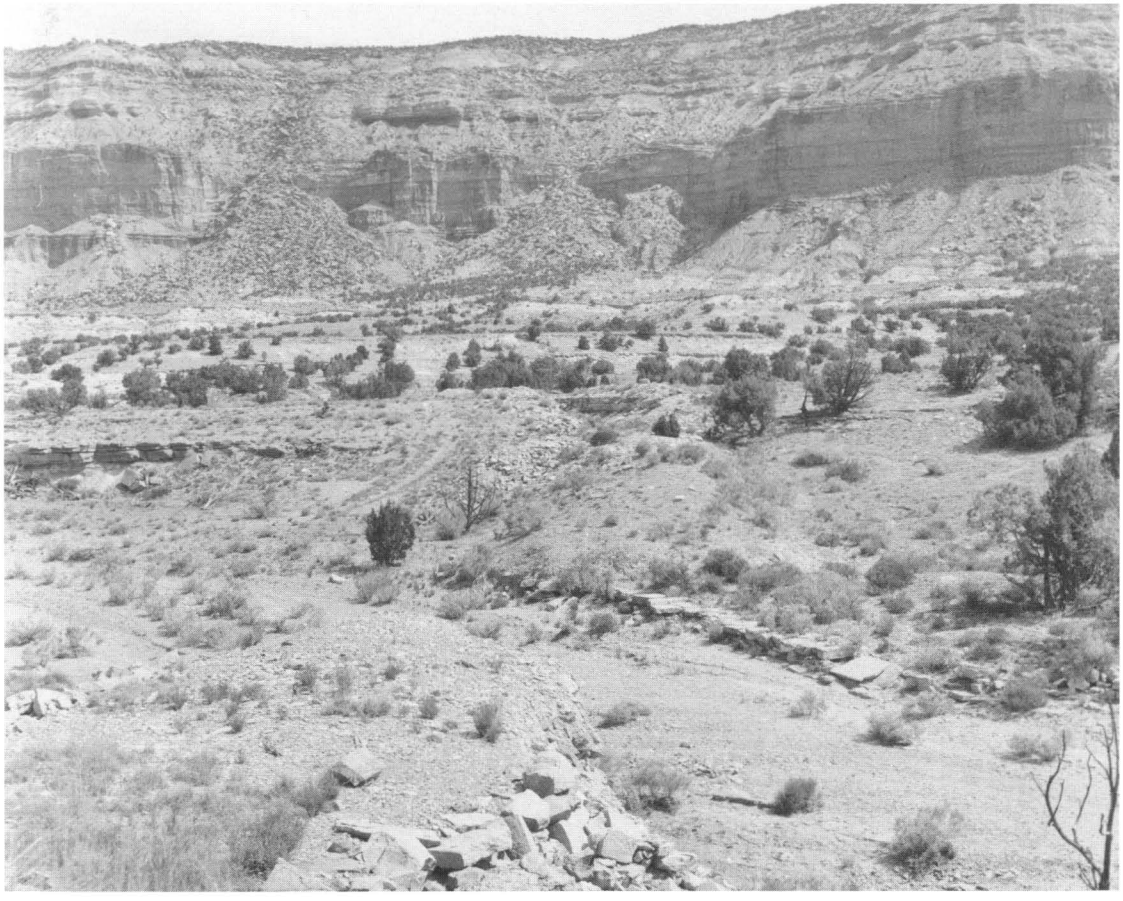
Evening is coming on, and before we go to rest we hear for the first time in half a year the shrill whistle of the locomotive as the cars roll up to the station three miles below us. *(Clear Creek* (later Tucker), *Utah, was*

the point where the U&PV, built in 1878-79 south from Springville, turned up Starvation Creek to work its way over the crest of the Wasatch range to the coal seam near Scofield, employing an unusual switchback arrangement to surmount the summit. The road was purchased by the D&RGW Railway at foreclosure in June 1882, and the switchback line was abandoned by December that year.—editor)

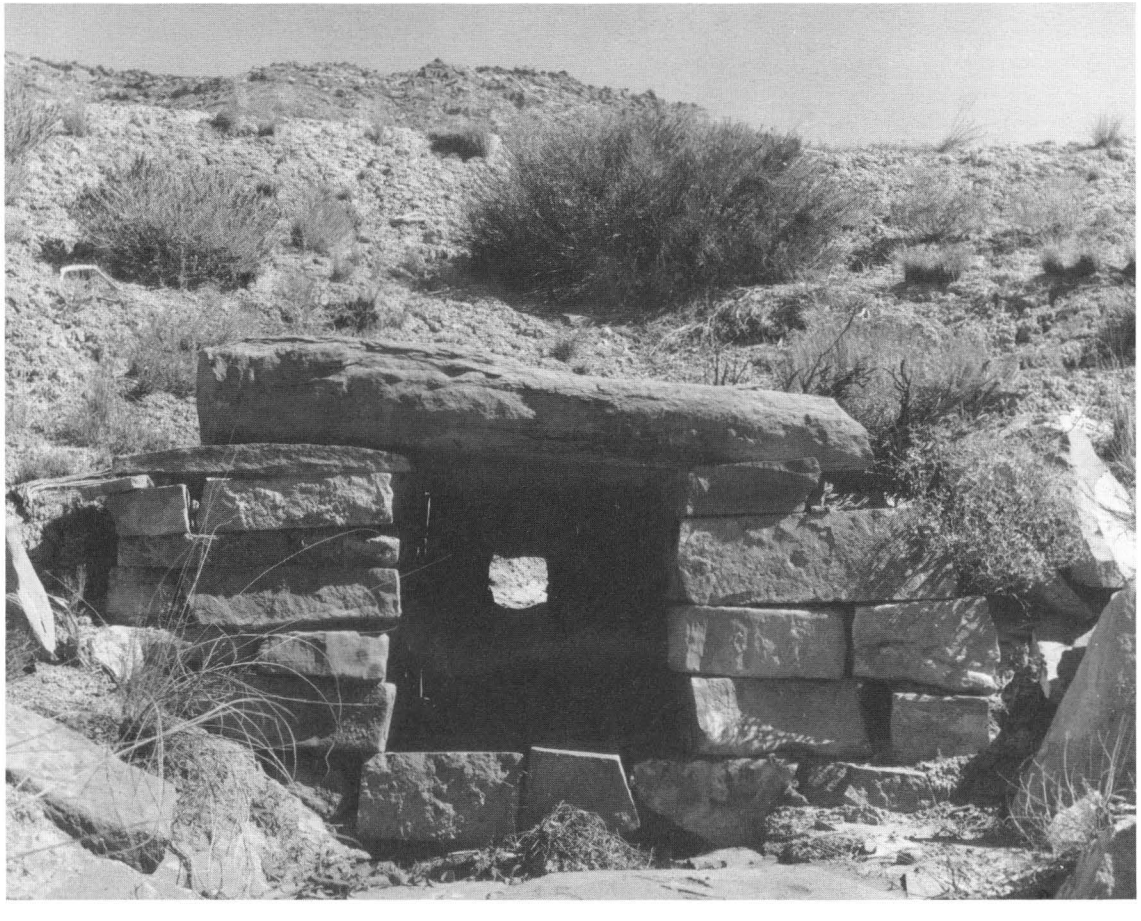
The stark winter sun of Christmas Eve 1980 highlights the unfinished cut at the divide between Tidwell and Cottonwood draws, west of Green River, and the grade in Upper Cottonwood Draw—both still quite evident. (J.L. Ozment photos)



On June 7, 1981, a century to the day after E. Miller and J.T. Daly paused to carve their names in sandstone, Jim Ozment assembled this arrangement of surveyor's paraphenalia in front of "Inscription Rock," in the desert south of Cedar Mountain, Utah. A cumbersome 6-1/2 by 8-1/2-inch glass plate view camera (representative of the times), a surveyor's transit, level, carbine rifle and knapsack tell a silent but eloquent story of what it was like to find a path through the wilderness for a narrow gauge railroad. John H. Averett and H. A. Petty left their names a day earlier, June 6, 1881. The reader can decide at what point in time graffiti becomes an historic inscription.



An abandoned narrow gauge grade on which rails were never laid curves from the left foreground across this scene looking downgrade at the base of Cedar Mountain between Green River and Castle Valley(Jackson Thode photo). The carefully laid stone box culvert is still functioning, with no maintenance done in 100 years. It will no doubt still remain a century and more from now as a monument to this railroad building endeavor. (J.L. Ozment photo)



One hundred and one years after the surveyors laid out and built the unfinished grade on the south side of Cedar Mountain, Rio Grande Division Engineer Jim Ozment viewed the earlier work from the ramparts of the mountain June 7, 1982. His railroad is about 20 miles north of this location and carries 30 million gross tons annually. Looking south from the rim of Cedar Mountain, the unfinished grade of the D&RGW Ry. winds its way up the grade toward the summit between Castle Valley Junction and Green River, Utah. It was here that an engineer from Colorado made a grave error in measuring the elevation of the summit about a mile to the left side of the picture, causing unacceptable gradient for the narrow gauge, which was built along the Price River and Grassy Trail Wash instead. (left)In the distance is a lone mesa, behind which lies the site of Castle Valley Junction. Another unfinished line was graded from near the tip of Cedar Mountain in the distance along the east side of the mesa toward Salina Pass, off the view to the left.

An unfinished rock cut on the south side of Cedar Mountain was intended to carry the line from Green River to Castle Valley Junction. On December 31, 1881, all forces were withdrawn from this construction, never again to return. (J. L. Ozment photo, September 17, 1981) Below is a view west on the unfinished grade on the south side of Cedar Mountain. A recent pass with a bulldozer has left its marks in the wake of century earlier construction. (J.L. Ozment photo)

CHAPTER X
UTAH & PLEASANT VALLEY RAILWAY

The next day I went down to Clear Creek station and saw Eaton, the engineer who had located that portion of the line between the station and Soldier Summit. He was encamped about a mile from the station. He had run a great number of lines between the two points and the stakes were sticking around in all directions. The contractors were on the ground at work in various places along the line. Half of Eaton's party had been sent away and only enough men were kept with him to stake out a little work of the contractors till I came.

That same day the Chief Engineer came out and after looking over the line decided that a new one must be located. So our two parties were joined, and together we made the location. We got a reasonably straight line, but the road had about 1,400 feet in seven miles from the summit. *(Two hundred feet per mile average would result in a grade of 3.79 per cent. As finally built, the ruling grade on the west side of Soldier Summit was 3.97 per cent.—editor)*

All through the country the scenery changes with the geological formation. On the western slope it differed greatly from the eastern. The mountainsides, though very steep, did not present the rugged, vertical cliffs and jagged outline of the eastern side. On this slope we were within the Salt Lake Basin, and the rocks were, many of them, filled with fossils in various degrees of petrifaction. In one stratum we found the old mollusks completely changed to stone of a darker color and the matrix in which they were embedded. Another stratum was very hard, and filled with finely broken shells also completely petrified. Other rocks were made up of broken shells cemented together, but with the pieces of shells still retaining their original character and consistency. Other rocks were of a softer, friable nature and contained great numbers of shells of various sorts: oysters, snails, clams and periwinkles with the shells themselves as perfect as if they had been imbedded in the mud only the year previous.

And then there was one stratum of rock extending the whole length of the valley of the Soldier Fork along which we were working, and I don't know how much farther, that was a curiosity of itself. I called it a stratum of rock. Perhaps formation would be a better work, for it was made up of a great many very thin strata a quarter of an inch or less thick, the whole making up a mass of from six to fifty feet in thickness. From twenty to fifty percent of this rock consisted of a dark-colored wax very much resembling paraffin in its consistency, and looking like shoemaker's heel ball.

This wax was easily separated from the rock by simply heating it in a vessel over the fire, when the wax would rise to the surface and the earthly portion of the rock settle to the bottom. Covington, the hotel keeper at Clear Creek, boiled out a thousand pounds or more of this wax, hoping to sell it at a profit, but with what success I never heard. We sometimes built a little fire of dry wood and then piled on sheets of this rock , which then burned freely with an odor resembling kerosene.

There were plenty of monuments all along the valley of the Soldier Fork from Clear Creek to the summit where prospectors had got their notices up for mining claims. I doubt if any of them were worth much. A little later in the season men might have been seen along the mountainside near Clear Creek casting dirt and fragments of rock from holes that looked like badger holes in the distance. They were prospecting for coal and had found it in small quantities before I left.

My camp was about half way between Clear Creek and Soldier Summit, the ends of my new division. A little creek ran along the bottom of the valley only a few rods from my tents. It ran down along the mountainside with many a crook and fall. Here it goes tumbling over the rocks in plain sight of everyone, and there it is hidden by a copse of willows. When we force our way through the willows we find a dark pool caused by a beaver dam, and perhaps we hear the splash of the waters as the wary animal plunges in at our approach.

A quarter of a mile below camp the beavers had built a dam fifteen feet high. The boys made openings in it several times, but the next morning found the breach repaired. Mountain trout abounded in these little ponds along the stream, and we had some rare meals of them.

These little ponds, too, made a favorite haunt for ducks which sought their solitude late in the season. We had pitched our camp near a beautiful spring of clear sparkling cold water, but after using it for a time we had to give it up and use the creek water. It gave the entire party the diarrhea and I was for some time very ill from its use. About half a mile away there was a sulphur spring which scented the valley for a mile's distance when the wind was in the right direction. Deer were plenty and fat.

We had Winchester rifles, and the boys spent most of their Sundays hunting and seldom came in empty-handed. For several months our rations contained a liberal allowance of venison, partridges and trout, and we literally lived on the fat of the land, for fatter animals were never seen than the deer from the mountainside.

The latter part of September snow began to fall, first on the mountain tops then gradually working down into the valley. A few inches would fall in the valley and melt off the next day, but did not melt from the mountain tops. One Sunday morning early in November three of the boys started out to climb the mountains for a deer. Two of

them had Winchester rifles and the other a navy revolver. Before noon it began to snow, and by the middle of the afternoon it was a blinding storm. At five o'clock Ames came in, having enough of it. Root and Smith were on track of a deer when he left them soon after noon. At seven Root come into camp alone. He had got parted from Smith early in the afternoon and had spent a considerable time trying to find him. The snow was deep on the mountain and the driving storm filled up their tracks in a few minutes after they were made. At last he gave up and made for camp, but got lost and only found himself when he struck the grade at the summit four miles away.

We were intensely anxious about Smith, but it was no use for us to start out in the dark and blinding storm to search for a man with no track to follow and no idea of what part of the mountains he was in. We knew, too, that he was an experienced mountaineer, and depended on his making himself comfortable for the night and coming in when the storm was over. At 10 o'clock the storm cleared away, and at midnight Smith dragged himself into camp, utterly exhausted. He had got lost and wandered off till just before dark he came out on the line of the Pleasant Valley railroad, nearly twenty miles from Camp.

He knew where he was then, and followed the railroad track to Clear Creek and thence up the grade to camp. On his way up from Clear Creek a large lynx met him on the grade, seemingly disposed to dispute the passage with him. One or two shots from Smith's revolver sent the beast flying up the mountainside.

We frequently saw tracks of these animals on the grade and about camp, and heard their notes in the distance. Several times while camped at this place we heard the yell of the mountain lion in close proximity to the camp. The noise made by them is very much like the squalling of common cat at night, only much more powerful and penetrating. I have never heard a sound which seemed to pierce through everything as that did. When nearby it set every nerve tingling at once.

By the second week in November our work was completed in this division and we lay in camp with nothing to do. The graders were all gone except a small party at the summit and it seemed lonely enough. One day I got a telegram to meet some men at Clear Creek the next morning and I would there find orders. I was there when the train came in and found directions to go with the party of men up the end of Pleasant Valley railroad and hunt up some coal claims and set these men at work on them. I was given a rude sketch of the country to find them by.

This was an opportunity I had been waiting for some time—to see the country up the line of this road. It is a narrow gauge road built to bring down coal from the Pleasant Valley mines. No passenger trains run on the road, and only two freight trains. One of these trains takes a waycar up to the mine and the other leaves its waycar at Clear Creek, twenty miles below, so as not to draw any extra weight up the mountain. Ten loaded cars are as many as one engine can control down the mountain.

From Clear Creek we went winding along a narrow, tortuous canyon, crossing and re-crossing the little stream which ran at its bottom for a distance of about six miles. There was a station house there. Just beyond it the canyon parted into three branches and the road seemed to come to an abrupt end in one of the most romantic and wildly beautiful bits of mountain scenery that I ever beheld. This is the "lower back switch." The road can no longer follow the steep rise of the canyon. The train runs out to the end of track, a switch is turned and we go backwards on the side track.

As we go we climb higher and higher up the mountainside and gradually draw away from the track that we came up, till now we have been backing two miles and the other track is more than 500 feet below us and a quarter of a mile away. But now we swing with a sharp curve around the end of the mountain, and so winding and climbing with the waycar ahead and the engine behind, we go for nearly five miles when we come to the end of the road again, or rather to the "upper back switch." We look about us and find we have got nearly to the top of the range and, as we glance down a canyon which opens before us, we see a thousand feet below us and about a half a mile away the "lower back switch" that we left an hour ago.

We double in our track again, this time with the engine ahead toiling slowly up the mountainside till we reach the summit where there is a pile of telegraph poles and ties that have been hauled from the neighboring ravines. There is a little station house here, too, for the track men. We make a brief halt here and soon are speeding rapidly down into Pleasant Valley.

This is the most beautiful, homelike spot I saw in Utah. A valley nestled among the mountains nearly 8,000 feet above the sea, with grass growing almost thick enough to make a turf and flocks of sheep and herds of cattle grazing at will or gathered in corrals near the ranchman's huts. The valley is four or five miles long and from one to two miles wide and looks as level as a prairie. The soil is dark and rich and would produce splendid crops of anything if it did not lie so near the clouds. But the nights are cold and frost comes every month in the year, so it is used for a summer pasture and when the winter comes the flocks go to a warmer climate. Fish Creek runs the length of the valley, then making a sudden turn, dashes through a deep canyon down to the Price River. It is noted for the number and size of the trout which are found in its waters.

We soon cross Fish Creek and then the road begins to climb again till we reach the upper end of the valley where we get off the train at a little village made up of a boarding house, a store, and a big pile of ties. The train goes on and dashes into the gloomy recesses of a dark canyon, and in five minutes more we hear it whistling at the mine a mile away.

Next day we spent wandering about the mountains, now following up some dark canyon, now clambering over some craggy peak, searching here and there for the work of the prospector.

We ask no questions and tell nobody our business, for do you know, gentle reader, we were there intent on jumping claims. Rich and valuable coal deposits are known to exist there. The prospectors had been there several years before and picked and dug their holes here and there in all manner of out-of-the-way places, and built their little log pens which they called their cabins, and made their claims. But something new attracted them elsewhere and they failed to prove their claim and get their title within the time prescribed by law. Now a railroad was opened within easy reach of them, owned by the Denver and Rio Grande. The Union Pacific was building another right beside it to reach the same field, and now these claims were of some consequence and the first ones to get possession of them were the best fellows. We got there. It was a hard tramp over a half a township, with the snow about six inches deep and melting in the sun, but in the course of two days I found all the claims, eight in number, and had men at work on them.

Next morning I asked the boarding house keeper if the train would stop for me on signal, or must I go up to the mine. He said they would stop for me, so I stood on the track and waited till they came in sight out of the mouth of the canyon and waved my handkerchief as a signal. But the train went by me like the wind, only a single car loaded with coal being cut off from the rest of the train and stopping there. I supposed I was left, but the single brakeman on the car shouted to me to hurry up and jump on. Without stopping to ask any questions I climbed up among the coal and found as comfortable a place as I could, and then followed the railroad ride of my life.

The train was already a mile away speeding down the valley when the brakeman loosened the brakes and our car began to move. At first the motion was slow, but with each turn of the wheels we went faster and faster, the brakeman keeping it well under control till we struck the long straight line down Pleasant Valley, and then we fairly flew. It was snowing, and a chilly wind beat the hard snowflakes into our faces. I crammed my hat down tightly onto my head but it would not stay there and I had to hold it on, which was inconvenient as I needed more hands than I had to keep my position on the car.

The train steams on ahead and we follow like the wind, rapidly lessening the space between us till just before we reach the rear end of the train the brakeman, who is at the front end of the car, put on the brakes with all force and we glide gently up and the car is coupled on without the least jar of slackening in the motion of the train. I may have ridden faster than I did on that car, but I never rode in any place that gave such a thrilling sensation of flying at whirlwind speed through the air as then. It took the train three hours to go from Clear Creek to Pleasant Valley, but the return was made in one hour.

CHAPTER XI
SURVEYING THE UTAH &PLEASANT VALLEY

One day about the middle of November a telegram was brought to my camp with orders from the Chief Engineer directing me to go to Clear Creek and take charge of a party which I would find awaiting me there. When I got there I found a large locating party in camp about a mile up the Utah and Pleasant Valley railroad from the station.

The Denver and Rio Grande railroad company had got possession of this road some months before *(preliminary to purchase at foreclosure sale in June 1882—editor)* and were now operating it. I was to make a re-survey of the line of the road, with maps and profiles to show its location from Clear Creek to Pleasant Valley coal mines. The weather was cold, but not so uncomfortable as one might have expected from the indication of the thermometer. There was a little snow on the ground along the valley, and a good deal more in the gulches and ravines along the mountainsides and about the summit.

We moved camp from place to place along the line by loading our things onto the passing trains, which took us up and let us off wherever we chose. When halfway up the mountains part of the men gave out with the cold and left me. In their place a couple of Michigan boys, McIntyre and Rockwood from Flint, were sent to my party. They came just as we were running our line over the summit and down into Pleasant Valley.

It was biting cold there, with the wind blowing and the mercury down to 20 degrees below zero when we would start for our work in the morning. It was not a week till we had our line run up to the very mouth of the coal mine. This is at the bottom of a dark and gloomy canyon. There is a long row of coal bins with chutes, and car after car is drawn out of the mouth of the mine, weighed, and dumped into the bins. There are a dozen or fifteen log huts scattered around, and a few frame houses. The coal vein is seven feet thick and lies thirty or forty feet above the bottom of the canyon. It runs horizontally into the mountainside with scarcely any dip. A single mule goes in and out of the mine, drawing long trains of little dump

cars back and forth, to and from the farthest galleries in the mine. I ventured a few hundred feet into the mine and saw the miners at their work, and was glad enough to get out again. There is little or no trouble from foul gases, and the workmen each carry a small open lamp attached to their cap over the forepiece.

The coal is blasted out with powder, the lower part of the vein to the height of a man's head being taken out first, then the roofing thrown down. In one of the galleries I entered the miners were preparing to throw down the coal from the roof. It had been seamed and shaken by the blasts in the lower part of the vein, and seemed ready to drop on their heads at any instant in great masses of tons in weight. I was especially careful to stand from under, and it made my blood fairly run cold to see the reckless way in which the miners passed back and forth under these apparently loose masses of coal.

"There is little danger," said one. "We can tell when it is going to fall, and get out of the way." Before I left Clear Creek a special train was carrying his mangled remains over the line to his friends. A mass had fallen when he did not expect it. Scarcely a month passes in which someone is not killed in the mines, and yet the miners continue as reckless as ever.

The coal mined here is an excellent quality of bituminous coal containing but little sulphur, rich in resinous matter. Lumps of resin looking like the common resin of commerce were interspersed through it. It burned freely in our camp stove, which was made of sheet iron, conical in shape, and without any bottom. We laid a few stones on the ground to keep the coal up, and had no trouble in burning it.

Our work was soon done and we returned to Clear Creek and went into camp to await further orders. It was a matter of a good deal of speculation among the boys as to what would be done with the party. Would we be discharged as so many of the parties had already been, or would we be sent over the mountains into the lower canyons of the Price which Davis had been recently exploring? The latter seemed a desperate alternative to some of the boys, as winter was now upon us and the snow was daily piling up higher and deeper over the summit. It was an open question whether we should be able to get any provisions over the mountains into the country after we got there. Our cook and all the Mormon boys in the party, but one, left us from the fear of being sent there. We supplied the cook's place with a heathen Chinee who stayed with us and cooked our victuals and stole our provisions as long as we stayed at Clear Creek.

It was not long until the dreaded order came for us to break camp and start for the lower Price. John Chinaman would not risk himself on the other side of the mountains so were obliged to start without him. It was the sixth of December that we broke camp and started our new work. One wagon drawn by a span of mules carried our tents and baggage and grain for the animals, another wagon loaded down with provisions made a load for four more mules. We had flour, beans, bacon, hams, baking powder, dried apples, canned tomatoes, butter, and a general assortment of spices and condiments. We expected to get fresh beef and mutton when we got there.

We started without a cook, and with only half of a party. There was Emmett, the transitman, an energetic little fellow quick as a flash at his instrument, and just as quick to fly into a rage and swear till everything looked blue if anything went wrong. He was a whole-souled, generous fellow and the boys all liked him for all the cursing he gave them now and then. Next came Carrrington, the leveller, a lad from the sacred soil of Virginia. He was a little fellow living with his parents in Richmond during the long siege, and saw enough of war there to last him a lifetime.

Then there was Burbank, the rodman, a printer boy from among the Gentiles of Salt Lake City, and McIntyre from Flint, Michigan. Rockwood, whose weak eyes had obliged him to give up his studies at Michigan University, and McNulty, the young California tramp who had bummed his way more than half way across the continent and was now glad of a chance to get an honest living among decent people, also were along. Lupfer, the Pennsylvania Dutchman, would ask more questions to the square inch than any man I ever saw. He wore rubber hip boots and wrote endless letters all the time, and picked up stones the rest of the time. These, with McPhitridge, who did not stay with us long, together with two teamsters, made up the party who went out with me from Clear Creek. A better lot of men were seldom together.

It was a clear, pleasant Sunday afternoon when the boys started out from Clear Creek. A little snow had fallen the night before in the valley and was now thawing so that the roads were as slippery with soft clay mud as if they had been soaped. The wagons were loaded as full as the teams could draw and the boys walked alongside, giving a lift now and then up some steep pitch or holding the wagons from slewing around and tipping over when they ran over a piece of sliding ground. I stayed in Clear Creek to have a short visit with my brother, who had just come over the mountains on his way home.

Next morning I started out on foot and alone to overtake the party. Snow had fallen during the night and as I neared the summit it grew deeper and deeper, making walking very difficult. Half way up I passed a dozen teams belonging to the company, loaded with hay, grain and provisions which they were trying to get over the mountains before the road became impassable. I overtook the party a little after noon a few miles over the summit at Marion's camp. From here on the roads were better for some miles and we trudged merrily on, now and then mounting wagons for a ride when the road would admit of it.

We were following the old Spanish Trail which leaves the valley of the Price River near the mouth of Fish Creek and, avoiding the canyon, passes to the left *(north)* through Emma Park. We camped that night at the foot of Coyune Hill. We have thus far kept along a broad, open valley between two mountain ridges, the river all the time

running near. The valley continues on and the trail follows it, but the Price makes a sudden bend to the right and makes its way through the very heart of the mountain ridge and we see no more of it for the next 50 miles.

The next day at noon we reached Horse Creek and I took the opportunity to run down it to my old camp on the river, among the firs where Davis was now settled. The telegraph wires had reached the camp and an operator was seated at his instrument communicating with the outside world. Davis was away down the river, and after dinner I rejoined my party. Night found us at Elliott and Davidson's sheep ranch in Emma Park. There was a log hut beside a little stream and a large corral of an acre or more divided up into several smaller yards filled with sheep. When we had pitched our tents and eaten our supper and turned out in the dark a scene met our eyes which would have filled the heart of any artist.

There were the gloomy snow-capped mountains with the stars peeping out over them for a background. At their foot was the level park with its hut and corrals all lighted by the lurid blaze of a fire over which a large caldron seethed and boiled. Beside it was a large vat and half a dozen men in rough costumes engaged, some in dipping the decoction to and from the caldron and vat, others catching sheep from the adjacent pen and plunging them over head and ears in the vat, and others standing ready and pulling them out the other side. Half a dozen dogs were playing about, and seemed to take as much interest in the work as the men themselves. The sheep which had been feeding in the adjacent mountains were now gathered together in the park and were being dipped in hot lime and sulphur water as a remedy and preventative of scab before being sent into Castle Valley for the winter.

Elliott was said to be the son of an English Lord, and his partner, Davidson, was a Scotchman. They had been in India and Australia, and finally settled in this uninhabited portion of Utah for their stock range. They owned about 30,000 sheep, and a relative named McLaren had about 15,000 more. We had met them on our first trip into the Castle Valley in the spring and found them gentlemanly, well-informed men. We frequently met their shepherds farther on who had standing orders to furnish our party with mutton free of charge whenever we asked for it.

Next day we entered Soldier Canyon. The road was very rough and had been washed away in places and it required the constant assistance of the party to keep the wagons from overturning. At one place I took my rifle and went on ahead of the party in hopes of finding some game.

A dead sheep lay on the ice in the creek which something had been at work at and which I must have disturbed. I sat down behind a tree to watch for a few minutes. Presently a small flock of magpies alighted on the sheep and began to tear and devour it. I fired among them and killed one. As I went to see the results of my shot I noticed a black spot where my ball had struck the opposite bank just at the edge of the ice. Picking into it I discovered a vein of very fine cannel *(a type of bituminous)* coal. It extended only two inches above the ice, and how much below I do not know. I carefully noted the spot, but have never been there since.

Just before leaving the Soldier's Canyon the road climbs a very steep hill: next day it took us till nearly noon to climb the hill a couple of hundred feet high. Night caught us at the foot of the hill; as everything had to be unloaded from the wagons and carried up by hand. When we got there the broad expanse of Castle Valley lay like a panorama before us, stretching out for miles and miles away. A hard afternoon's drive which extended well into night brought us once more to Price River, at the same crossing where we had first struck it and camped in March before.

The spot looked, if possible, more desolate than it did when we were there the spring before. Then there was a shepherd's camp nearby and a great flock of sheep grazing on the plain. Now, nothing broke the silence of the desert save out own voices or the sharp bark of the coyote along the foothills just at the set of sun, and every night long scattering flocks of ravens passed over in their straggling flight toward the Cedar Mountains. The grim mountain tops on either side were covered deep with snow but the broad expanse of Castle Valley lay spread out before us as dry and bare as in midsummer.

Herds of cattle almost wild grazed along the foothills and sometime during the day we would see them come trooping down in long files to the river for water. Sometimes we would see a solitary horseman clad in leather garments galloping over the plain or clambering up the hillsides, or silhouetted against the sky as he sat astride his horse upon the mountain top, still as a statue, and gazing intently through his glass in search of the herds entrusted to his charge. A loose horse without bridle or halter accompanies him bearing a pack in which are blankets, skillets, camp kettles, flour, baking powder, beef, salt, and tea or coffee. With his outfit he rides alone week after week looking after his cattle which are scattered all over the country from the Wasatch mountains to the Green River.

He stops at night wherever he can find wood and water and grass for his horses, and takes his noonday meal wherever he happens to be. The cattle were in fine order now and made the finest beef I ever ate.

Before leaving Clear Creek I had taken the precaution to procure from Tucker & Thomas a written order on their herdsman for beef whenever we wanted it and, lest we might not meet him when we were in need, I had permission to kill for myself beef out of their herds on condition of reporting to them the number and kind of cattle I killed. This order was of great use to me afterwards when I got farther down the canyon. There were two parties of engineers in this field, my own and another which was at work above us bringing down the new line from Dead Horse Crossing to the old line which I had run the spring

before by way of the Grassy Trail Creek. Parrish's party was already at work on the line down from Dead Horse and in the few days he had his line down to our camp. From this point on he was to follow our old line over the divide to the Grassy Trail Creek and thence down to its junction with the Price River.

I was to follow the Price in its windings through the great canyon of the Cedar Mountains to the same point, and when the junction was made one party would be sent in and the other would continue down the river through the Book Cliff Canyon till they met a party coming up the river from the east. Whose party would stay and complete the line from the mouth of the Grassy Trail Creek on? The work began to look attractive. As we pushed down into the canyon its walls began to take on the most wonderful and attractive forms. The weather was superb. We began to wish that such a job might last forever.

"Boys," said I, "we have the longest and in every way the most difficult line to run —which is as great a compliment as the Chief Engineer could pay us. Can we beat those fellows to the junction?"

"We'll try it, and they have got to get right up and climb if we don't beat them," was the reply, and away we went.

The mountain walls rose higher and higher and more nearly vertical on the side of the valley as we worked further toward the heart of the mountain range. The character of the rocks and scenery was constantly changing. Now it was dull grey sandstone burnt with volcanic fires till its surface was fused and glazed so hard that a cold chisel would hardly mark it, and all scattered about were beautiful colored and highly polished pebbles so hard that a file would not scratch them.

After that the prevailing rock was a kind of pudding stone made up of millions of small pebbles of various colors cemented together into a solid mass many hundred feet in thickness. In one place a side canyon opened into the valley near our camp. It was two hundred feet deep and nearly filled for half a mile with boulders of this rock from the size of a barrel to that of a large house, all tumbled in together in dire confusion. The dry bed of a stream lay at its bottom, coursing under and around those rocks. I followed it back to its summit, now squeezing between the boulders, now crawling along a dark cave underneath them and, revolver in hand, keeping a good lookout for any bear or mountain lion which might be lurking there. It was a wild, toilsome, exciting trip, and I was heartily glad when, after an hour's hard labor, I found myself standing on the summit of the mountain with all the crags and rock below and spread out before me. We called it the Thunderbolt Canyon.

Nearby was the great stone elephant—the most remarkable natural curiosity I saw in the west. We camped beside it for over a week. It was a great rock jutting out from the base of the mountain into the valley and worn by the elements into almost the exact form of an immense elephant. It was the same conglomerate rock I have mentioned and had the form of trunk, head, eyes, ears, forelegs and body nearly as perfect as if chiseled by the hand of a sculptor. No aid whatever is required from the imagination to see the resemblance, and it makes not the least difference from what direction it is viewed. No one could mistake it.

Right back of it rises a tall mountain peak. On Christmas day we all climbed the peak and built a tall monument of loose flat rocks upon its highest point. In it we placed a record of the party and the date, and chiseling the name upon the topmost rock we called the mountain Christmas Peak.

A few miles farther on we left the conglomerate and entered a region where the prevailing rocks are of sandstone of various colors, mostly of a very delicate purplish tint of grey when freshly broken, but assuming a bright red color after exposure. We first found them at the "Ribbon Rocks," where a cliff juts out into the valley with vertical sides, the upper strata projecting like a cornice and made up of horizontal layers of alternately red and yellow rock whose bright colors resembled streamers of particolored ribbons floating in the air.

Farther on the walls of the canyon took on architectural forms and for a distance of six miles resembled the pictures I have seen of ancient cities, only no work of man's hand was ever so beautiful and grand. We called it the Eternal City. The canyon of the Price made the principal street while side canyons coming in a short intervals on either side resembled the cross streets of the city. The whole valley seemed lined with great buildings of brick-red color, with columns, porticoes, cornices, balconies and towers in almost inconceivable variety and beauty, and sublime in the grandeur of their vast proportions.

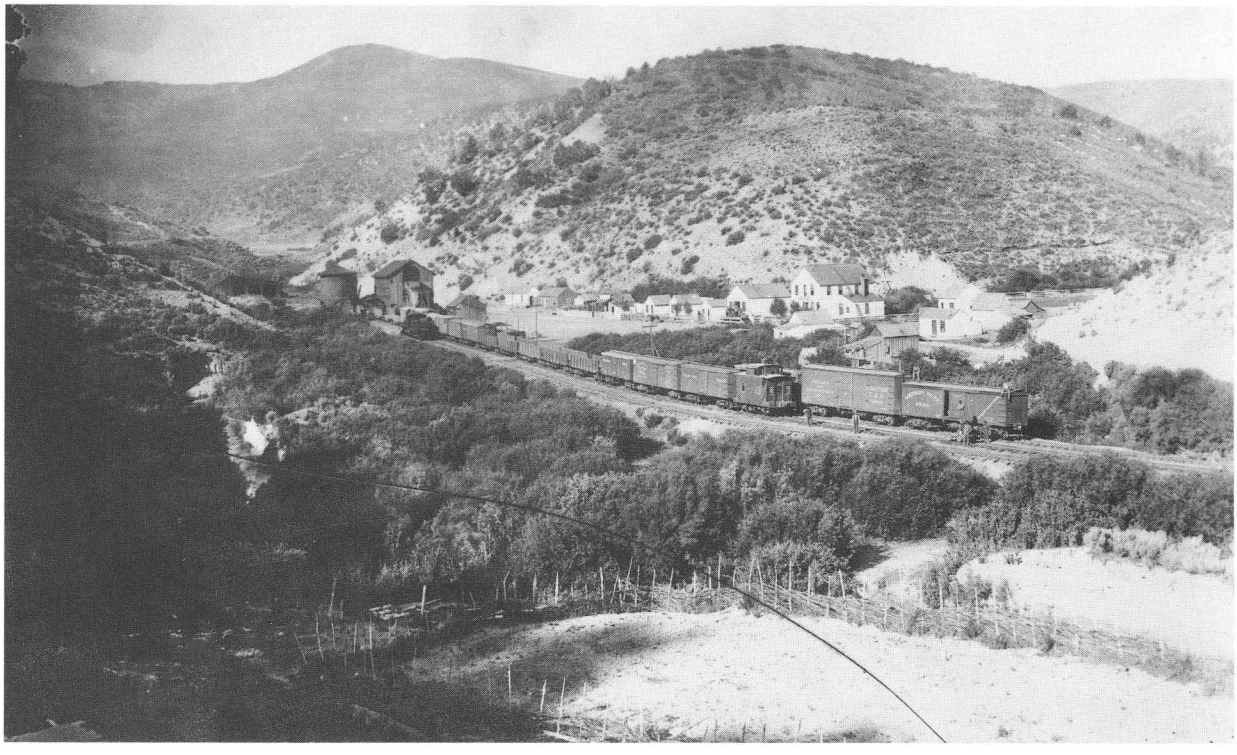
One of these rocks was about 100 feet wide, 300 long, and about 150 to 200 feet high. It stood out entirely separate from the mountain, across the mouth of a large side canyon. Its walls were either vertical or overhanging, and unless one had a balloon or a ladder more than a hundred feet long its summit could not be reached. It looked like some great bank building. On the side toward the mountain was a series of Hieroglyphic markings done with some kind of paint. They resembled a series of pillars connected with arches, eight in number, and all connected by one large arch sweeping over the top of all. They were at least sixty feet above the ground, inaccessible from below, and where the rock overhung so much that if a man had hung down by a rope from the top he would have swung at least a dozen feet away from the markings.

How came they there? I explored the side canyon back off this rock for a long distance and found the rocks marked in a great many places in a similar manner. It was evidently done with some kind of paint, and being always under the overhanging rock where it is perfectly dry and sheltered from both sun and storm, it has lasted for nobody knows how long.

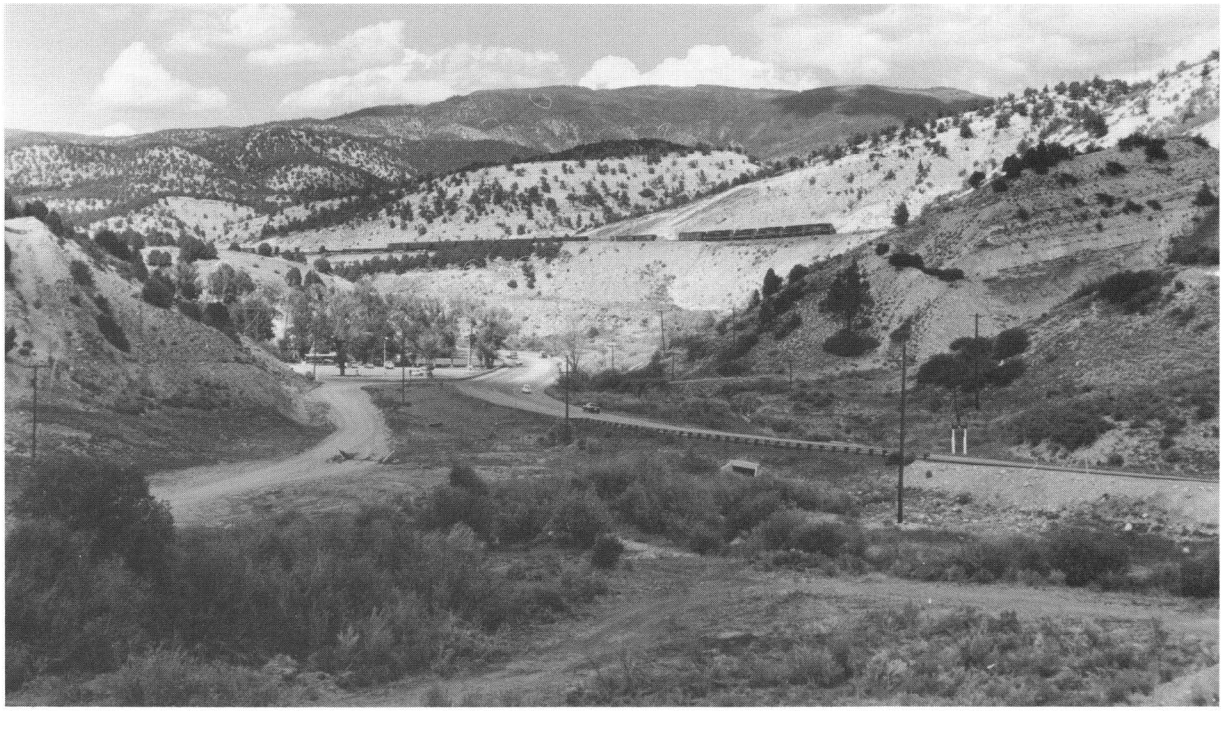
The first morning after we camped there, as we went out to our work, we found in the path we had made the

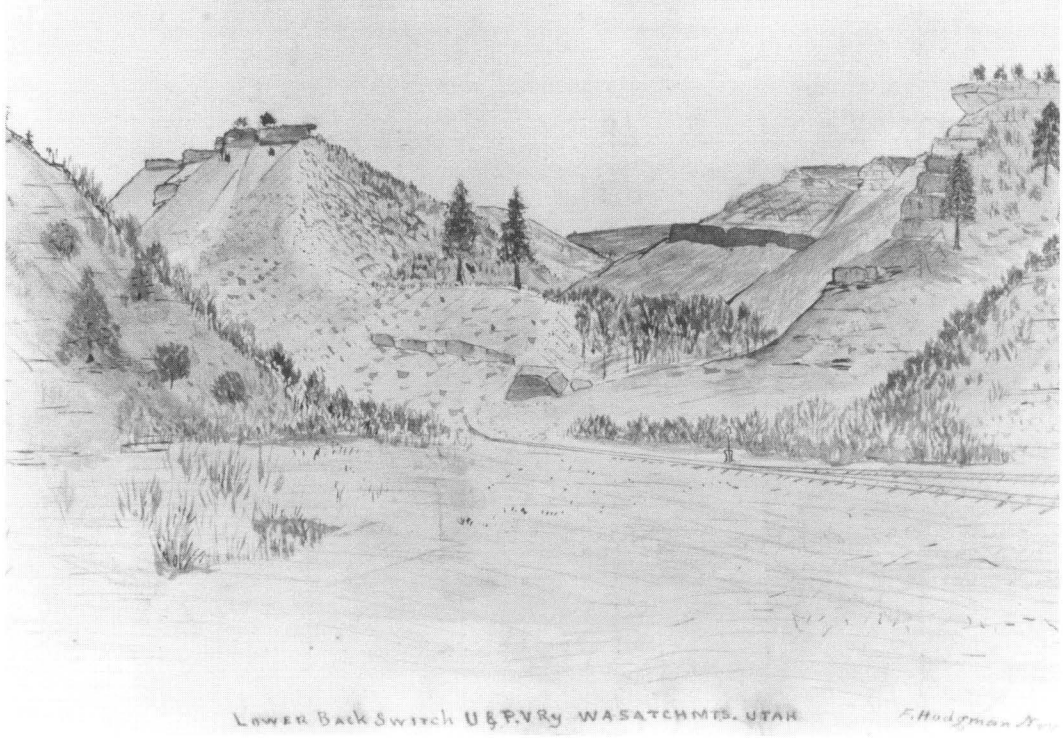
day before the fresh track of a mountain lion. It was like any cat track, only so large that when I stooped down to measure it with my hand the hand would not cover more than two-thirds of the track. It was as large as the largest horse track I ever saw. We never met the fellow who made it, though we would all have been glad to have got a sight of him at a safe distance.

Bears, mountain lions and lynxes were plenty in that region, and it was a little remarkable that although I was out alone a great deal of the time prospecting along the line and among the mountains I never happened to meet one of these animals. I always went armed and prepared either to fight or run away, as the case demanded, if I did see one of those fellows.



Early in the century Tucker, Utah, had a small row of houses facing the Rio Grande yard, enginehouse, watertank and covered coaling trestle. At least two steam locomotives are visible in the background, with a four-wheel caboose, Union Pacific boxcar, Chicago & North Western furniture car and Northern Pacific boxcar just beyond the crudely fenced pasture in the foreground. (Utah State Historical Society). On a balmy summer day (below), August 20, 1978, an eastbound train climbs the two per cent grade on the 1913 line relocation. The highway is built on the original line here at the site of Clear Creek Station on the Utah & Pleasant Valley Railway. The rest stop mid-picture is the site of the later town of Tucker on the Rio Grande Western Railway.





On October 3, 1978, a group of rail historians gathered to explore the grade of the long gone Utah & Pleasant Valley Railway at the lower end of the switchback grade over the Wasatch Mountains. The photograph replicates Frank Hodgman's painting, shown in color at the beginning of this article and reproduced here in black and white for comparison. (J.L. Ozment)

(opposite, above) The switchback loop grade of the Utah & Pleasant Valley on the east side of Starvation Creek south of old Clear Creek (later, Tucker), abandoned in 1882, was photographed from a Cessna airplane by Jim Ozment 100 years later. The site of the lower switch is at the upper left margin.

CHAPTER XII
THE WORK IS COMPLETED

It was late in December, and our party had worked their way well down into the Cedar Mesa Canyon. We had thus far worked with short numbers. We had no cook and I had been obliged to detail McNulty, the young California tramp who knew how to make biscuit, to do the cooking. We did not fare very well.

We had no topographer, and there was urgent need of such a man. In addition to my own duties I was obliged to take the topography so far as time would permit. When I took charge of the party I found an aristocratic young man from New York City by the name of Suydam filling that position. He was away in Salt Lake City when we left Clear Creek but came to us at our first camp on the Price River. He staid a week, when the country got too rough for him and he went back to the city of the Saints.

On Christmas night a pack train with a dozen mules and three horses reached my camp. We had got beyond the reach of wagons and they had come to stay. With the animals were Ed Baker and Jack, the packers, and Jack Hiltz, a cook. With fresh supplies and a cook we began to think we would live a little better, and so we did. When we were out of meat I gave Baker my rifle and started him out after one of Tucker & Thomas's cattle. In due time he returned with the quarters of a young beef and then we lived on the fat of the land. Sometimes we got mutton from Elliott & Davidson's shepherds, who were not far away. When one beef was gone Baker got another from the mountains.

One day a man clad in leather, with a pair of navy revolvers in this belt, came along making inquiries in regard to the cattle we had been killing. It was one of the Whittemores who owned the herds of cattle and horses roaming in that vicinity. He evidently seemed to labor under the impression that we had no business shooting people's cattle down whenever we took a notion to do so. I showed him Tucker & Thomas's order and description of the brand.

"But," said he, "Tucker & Thomas have no cattle within fifty miles of here, and besides, there are three of us who have cattle branded in that way with a T— myself, Tucker & Thomas, and Terry. The cattle you have killed must be either mine or Terry's."

"I know nothing about that. You see my order. I have killed only such cattle as it describes. If they are yours you have only to satisfy me on that point, and your pay is ready. We are here over the mountain in the dead of winter, more than a hundred miles from our supplies. You are the first cattlemen we have seen, and we have not the slightest intention of going hungry when there is good beef handy by."

"Well, you are all right. But after this let me know when you want a beef and I will bring it to you. I had rather do it than have you shooting mine. My camp is about 25 miles below here in the direction you are going, and I shall see you every few days."

That order saved me a row with the cowboys. I saw Whittemore frequently after that and he sometimes staid with us overnight. We did not have to go hunting after beef any more.

One night after we got down into the "Eternal City" three men came into our camp from over the mountain. One was C.B. Collingwood, a boy from the Agricultural College, who had been with me a month or two while I was in charge of construction at Clear Creek. He came as topographer. With him were two men who came as common hands. They had left Benton's Camp *(Benton had been put in charge of Parrish's party for a time after the latter took sick —editor)* on the Grassy Trail about noon and were till nine o'clock getting seven miles over the mountains and down into the canyon. They had rolled their blankets and packs down the precipice into the valley and barely escaped rolling themselves over the same cliffs in the dark. It took most of the next day to gather up the scattered articles.

The wonderful cliffs and battlements of the Eternal City extend about seven miles down the river, a city not made with hands. In one place an immense dome of rock rises up from a base which at a little distance looks like some great building. The dome rises at least a hundred and fifty feet above its base and when we first saw it at a distance of about four miles the whole looked so much like the capitol at Washington that we instinctively named it Capitol Rock..

The river swept close around its base so that it formed a sort of peninsula jutting out from the mountainside into the valley. At what we might call the isthmus the rocks were comparatively low so that it seemed an easy task to climb them. Our line ran right at the foot of this rock and we passed it daily for several days as we went to and fro between our work and camp.

Back of Capitol Rock was a sort of open park, and one night as we were returning to camp Rockwood and Carrington thought they would take a shortcut through the park and over the isthmus to see what was there. I preferred to go around. The rest of party were behind. Carrington soon gave up the idea of crossing the isthmus and joined me but Rockwood kept on. As we came around on the other side of the rock we heard cries for help, and looking around saw Rockwood perched upon the side of the isthmus in a niche in the rock. He was apparently comfortably situated and in no danger so we concluded that he was trying to perpetrate one of those dry practical jokes for which he was somehow noted, or if he was not the rest of the party were not far behind and could give him what help he needed, so we passed on.

It was late when the party got in, and when they did come the camp was alive with jokes at Rockwood's expense. In crossing the isthmus he found no difficulty in climbing the one side, but when it came to getting down on the other it looked a little different. He thought he could make it, however, and seeing a good place for a foothold in a niche of the rock a dozen feet below he dropped down into it. When he got there he found no egress. The river swept along underneath him thirty feet below, covered with thick ice and bristling with the points of jagged boulders, and he was fairly trapped. He could neither advance or retreat. The axemen cut some of the tallest cottonwood saplings they could find and, leaning them against the rock, he scrambled down the best way he could and came into camp amid a rattling fire of jokes from the whole party.

With the additional help we were now making good progress. We occasionally heard from the party on the other route and were evidently gaining on them. Every man felt that if we could only beat them to the junction, in spite of the disadvantage in distance and character of the country, it would be a great feather in our caps. And then the work was one glorious holiday picnic and we all wanted to stay till it was finished.

The weather was the finest possible for our work, and the ever changing scenery of the canyon grand beyond description. Wishing to preserve mementoes of it I sent for a photographic camera and outfit to take views of the finest points of the scenery. It came so late that I missed getting views of the finest points, and my photographing was not a success.

(At that time the collodion wet-plate process was still in use. Mr. Hodgman's camera took pictures 2¼ x 4 inches in size. Of six original card-mounted prints surviving only one presents an acceptable image. He quickly acquired another outfit, this one 4 x 5 inches in size, and was much more successful with the new camera. Among five original prints of this size is his view of a miner's hut near Willow Creek, just below Castle Gate, made in February 1882 and very likely the earliest photograph ever made in the area. The eleven original photos mentioned are in possession of the editor.)

One day we had a scare. One of the new men was observed to go off by himself and examine his clothing. Next day a grayback was found in the boy's tent and raised a commotion out of all proportion with his dimensions. Boys who had seen the Ute Indian go whooping along without a tremor were fairly scared by the grayback. The man who brought them was given his walking papers on short notice. Clothing was changed and boiled daily and blankets hung out to the air for weeks till all traces of the enemy disappeared.

One morning about ten o'clock our line reached the Grassy Trail junction. We looked up the valley of the creek. Nobody was in sight, neither could we see anybody down the river. We looked for stakes but found none save those of my own line run almost a year before. Hurrah! We are ahead and will go skipping on down the river to meet the party coming up from below, who are not far away.

We had run twenty-eight miles of crooked canyon lines to sixteen miles by the other party and got in several days ahead of them. We continued our line down the river for about two weeks when I received orders to turn my party to L.M. Davis and report in Salt Lake City.

This was early in February *(1882)*. I had been with the boys since the middle of November, and had become greatly attached to them. No better fellows ever worked in a party together. The parting was a sorry one for all of us.

Four of the boys, McIntyre, Crandall, Hiltz and Baker, knowing that the work was nearly ended, chose to leave the party and go with me to Salt Lake City. We bade the other boys goodbye and started for our lonely tramp of sixty miles to Clear Creek where we would reach the railroad and settlement. So as we passed along we took a last look at the scenes so full of interest to us and dear from their associations.

At Frank Davis's camp we met the Chief Engineer, who gave us an outfit and sent us into the upper canyon of the Price to make a topographical survey of the Willow Creek coal region and locate coal claims. Our road lay along the grade that I had spent the summer before in building, and every stake and curve was familiar. There were half a dozen places where I left openings for culverts. Major Hurd, the Resident Engineer, came along and ordered them filled up. The water had torn its way through. "Now, Major, who was right, you or I?"

And now Steamboat Point with its Sentinel Rock towers grandly above us and passing around it we enter the grim depths of the upper canyon of the Price. The graders are gone and we hear not the sound of the blasting. The air is cold and the ground covered with snow which grows deeper as we ascend. The river is no longer a raging torrent but a babbling brook tumbling down the mountainside. And here Willow Creek empties into the river and the giant, jagged, storm-worn cliffs tower grandly above. Here and there on their sides are black looking holes with little piles of dirt at their mouths and rattling down the mountainsides. There is where the prospector had been at work in his search for coal.

At the foot of one of the cliffs is a little log hut about ten feet square with a dirt roof, one door and no window. The horns of a mountain sheep hang on the end of a log at one corner, and wornout picks and shovels are lying around. The hut is occupied by two miners who are employed by the railroad company to stay there and prospect for coal. *(This was the hut photographed by Mr. Hodgman—editor.)*

We pitch our tent beside the hut and spend the next week in running lines and taking measurements in all directions among these jagged mountains. The measures are all taken with the transit and stadia wires as the ground is so rough nobody can chain it.

When the work is completed we pack our instruments, and leaving tent and all in charge of the miners, make our way with a passing teamster over the drifting snows of Soldier Summit to Clear Creek, when we take the cars and soon are landed again in Salt Lake City.

A week is spent there in making up my maps and report and then, bidding farewell to my comrades and the grand old mountains, I speed my way home again, where I appreciate as I never did before the worth of a home, family and friends. But yet, I can never forget the loyal, true-hearted lads who went with me through the wonderful valleys and canyons in the mountains of Utah.

Beneath the spectacular cliffs of the Beckwith Plateau an eastbound D&RGW freight rolls through the Utah desert on April 25, 1979, not far from the site of the March 30, 1883 joining of the rails of the westward building forces of the D&RG R.R. and the eastward construction of the D&RGW Ry. Just above the covered hoppers lies the abandoned grade of the original narrow gauge, replaced in 1890 with the present standard gauge alignment. (J.L. Ozment photo)

EPILOGUE

Thus we come to the end of the writings and adventures of Francis Hodgman in the previously unexplored wilds that became Colorado's sister state. This transcript does not include any of the material from his many letters home, written to his wife and to each of his children. His letters often were illustrated with sketches of things he saw and did, and are quite informative.

After Mr. Hodgman's departure the Denver & Rio Grande Western Railway completed construction of its narrow gauge line across the Utah desert to a connection with the Denver & Rio Grande. The joining of the rails actually occurred at Desert Switch, 14 miles west of Green River, at 1:30 p.m. Friday afternoon, March 30, 1883. The location was not much more than 20 miles from where Frank Hodgman and his loyal, true-hearted lads had completed their survey down Cedar Mesa Canyon little more than a year before.

In 1889-90 almost 100 miles of new railroad were constructed as replacement for the old line when the company changed to standard gauge under the new corporate name of Rio Grande Western Railway. However, much of Mr. Hodgman's locating work up the Price River Canyon and on the west side of Soldier Summit continued to be utilized for the standard gauge. Moreover, notwithstanding much reconstruction and modernization in more recent times, some of his original location remains in use today, which speaks for the quality of his engineering skills.

Although Mr. Hodgman never returned to these scenes of his triumphs, he maintained a continuing active interest in the area. Among his memorabilia are a number of heretofore unknown photographs of the railroad taken during and after the conversion from narrow to standard gauge in the 1889-90 period. His letters, his photographs, his other mementos now are safely lodged and carefully preserved in the University Archives and Regional History Collection of Western Michigan University at Kalamazoo.

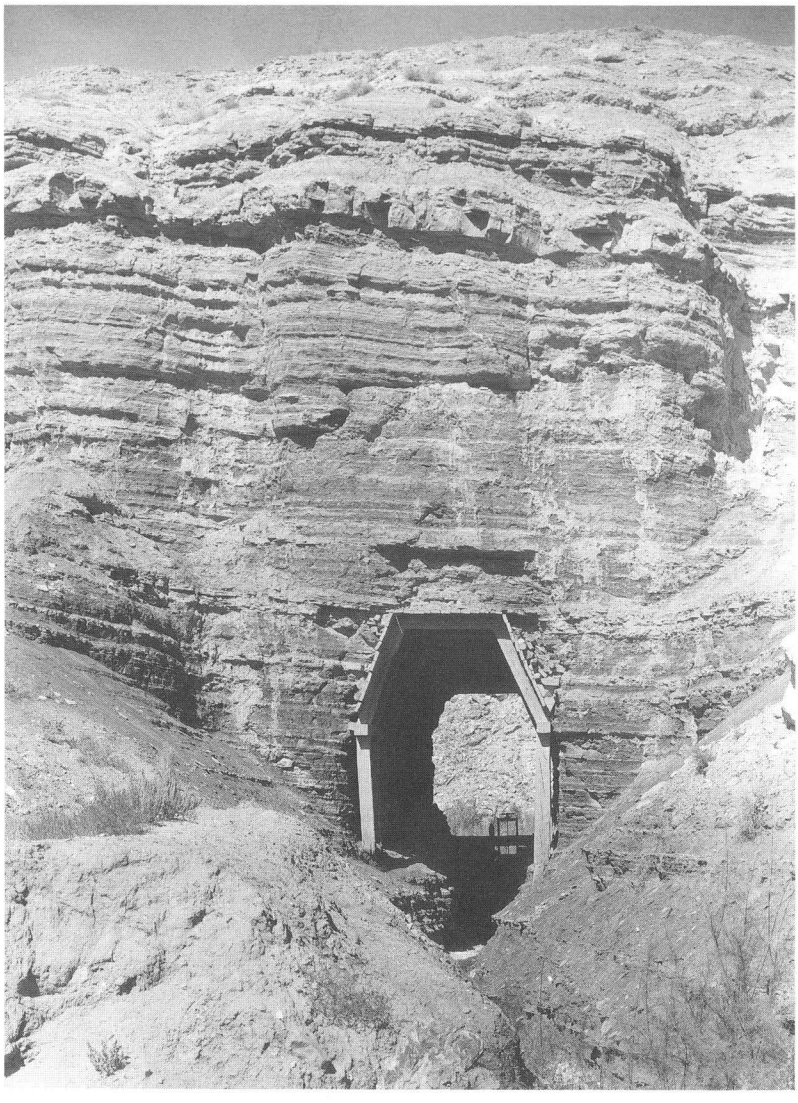
Francis Hodgman's first wife, Florence Betsy Comings, whom he married November 14, 1870, died in 1888. Some years later he married Emma Frances Smith in Chicago.

His second wife was an artist of no mean ability, and encouraged her husband to take up the hobby as well. One result was a number of large framed paintings, now in the possession of his great grandchildren, made from the photographs he had taken in early 1882 during his explorations down the lower Price River Canyon.

Frank Hodgman served as county surveyor of Kalamazoo for 25 years, was secretary of the Michigan Engineering Society for a number of years, and at the time of his death in 1907 was president of that organization. Active in civic affairs, he served as postmaster, publisher of the *Climax Cereal* newspaper, and was mayor of his hometown.

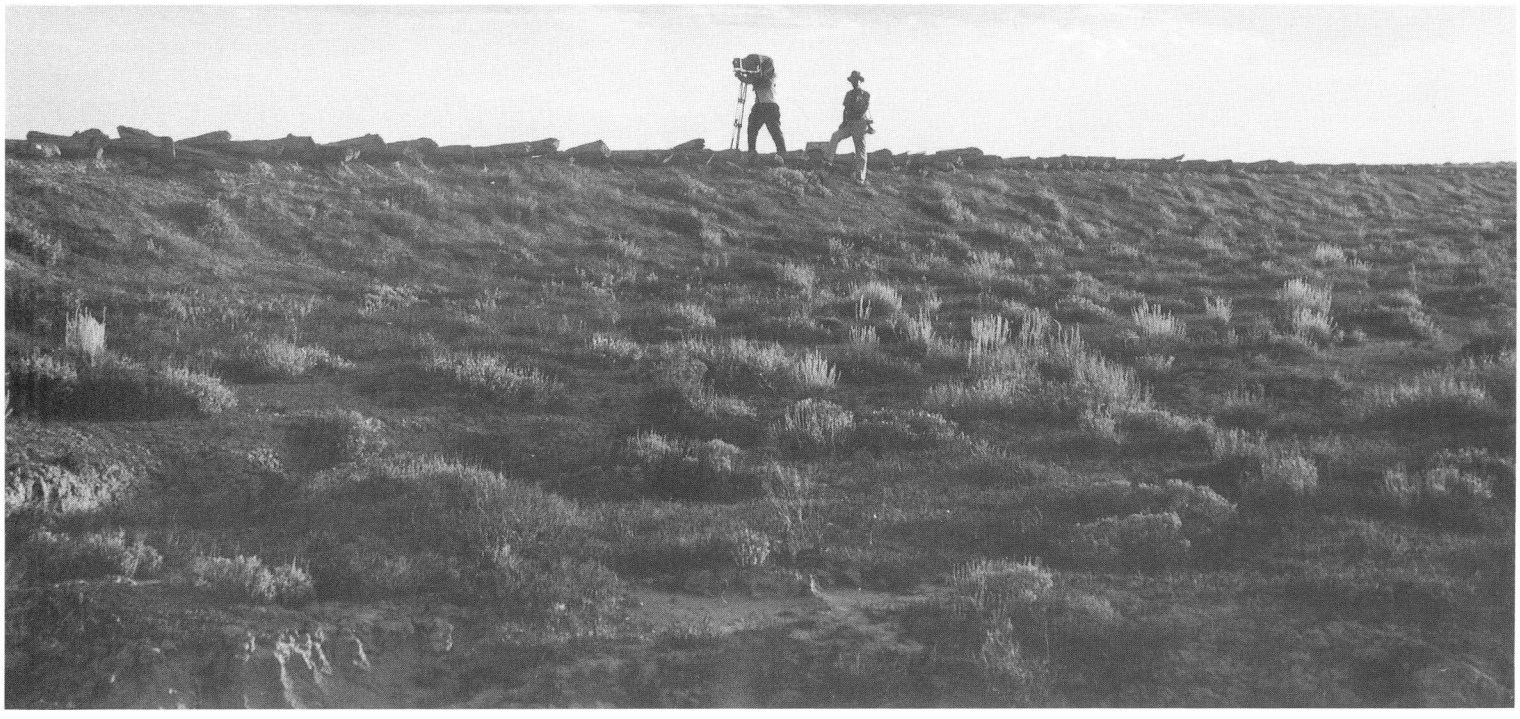
Frank Hodgman was a man of high principle and noble spirit, honored by a testamentary tablet placed on his gravesite by the townfolk of Climax fifty years after his death.

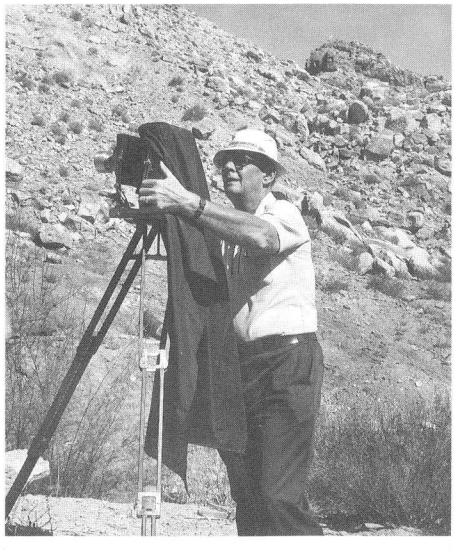
One morning in October 1983, Gordon Chappell leaned precariously out of a dutch door on Amtrak's California Zephyr *to record for posterity the east end of Desert siding, exactly 567 miles west of Denver Union Station via the Royal Gorge.*



The south portal and remnant of the narrow gauge tunnel in Price River Canyon between Woodside and Cedar appeared thusly on October 2, 1978. It had been abandoned in 1889-1890, when the line was relocated and standard gauged. (Jackson Thode photo)

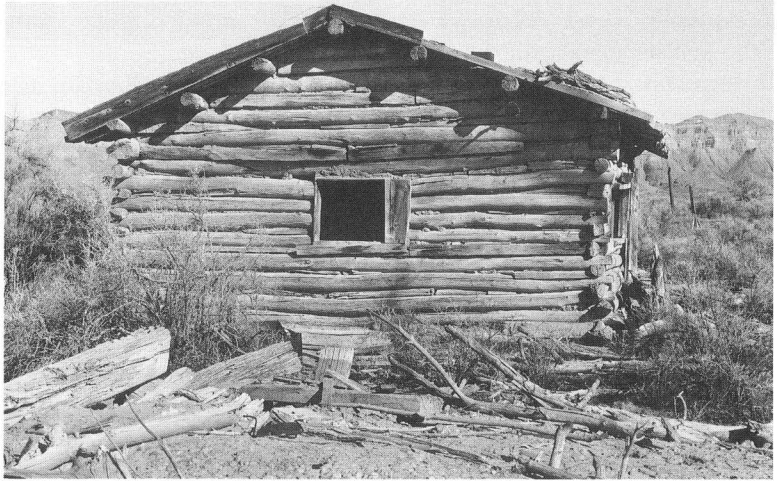
From 1883 until 1890 the diminutive trains of the D&RGW Ry., and later RGW Ry., traveled across the desert on 30-pound rails and hand-hewn, untreated ties. On October 1, 1978, the last section of undisturbed narrow gauge ties lies in the evening sun northwest of Cisco, Utah. On much of the narrow gauge grade, ties were removed, and the grade became part of the main road between Grand Junction, Colorado, and Price, Utah. This undisturbed section has miraculously survived over a century of disuse. (J.L. Ozment photo)





(above and below)In the same late evening sun, veteran railroad historian Jackson C. Thode and Australian visitor Bill Freeman prepare to photograph the long line of sun bleached narrow gauge ties in the Utah desert near Cisco, Utah.(left) Thode adjusts his 5x7 view camera preparing to photograph the narrow gauge tunnel in Price River Canyon above Woodside on October 2, 1978. (three photos, J.L. Ozment)

In lower Price River Canyon, just below the junction of Grassy Trail Creek, was the site of the siding of Grassy Trail. The view eastward here shows the cistern, watertank foundation and some scattered narrow gauge ties along the roadbed on September 16, 1980. The tip of the water spout was also found here, but remains of the tank were gone, creating suspicion that it might have been dismantled and moved to another location some 90 years earlier on the standard gauge line, several miles to the north.



Typical of the desert architecture of the early railroad construction period, this abandoned cabin along the Price River was no doubt used by the early railroaders for shelter. Several outbuildings were built with narrow gauge ties after the line was relocated some distance away from this location near Woodside and changed to standard gauge. Nearly a century after Frank Hodgman laid out the line down Grassy Trail Creek, narrow gauge ties remain along the line which carried the mainline between Denver and Ogden for only seven short years before it was replaced with a new line over Cedar hill. Severe washouts convinced management that the route down Grassy Trail Creek and the lower Price River was a poor place to put the railroad.
(three photos, J.L. Ozment)

A SUMMARY AND SUBSEQUENT DEVELOPMENT OF THE RAILROAD

Now let us turn to the practical aspects of the engineering requirements necessary to accomplish some of the proposals just discussed, along with a few of the personalities who were involved.

In April 1881, as remarked in Chapter V of Mr. Hodgman's story, the forces of the Denver & Rio Grande Western Railway set about locating and grading the line between Price and Green River via the Grassy Trail Creek alignment. The management in Denver disapproved of this, and accordingly on April 26 directed Chief Engineer Burgess to withdraw from this effort and concentrate on locating and constructing the alignment proposed between Green River and Price via Castle Valley Junction/ Cedar Mountain.

The decision in this matter was evidently based on two reasons: (a) The construction of the southernmost alignment would leave the way open to a shorter line over Salina Pass, which would favor future expansion toward Nevada and southern California, and it was believed that the line around the south side of Cedar Mountain could be built on a grade which their experienced civil engineer, Mathyas, assured them could be accomplished with a 75 feet to the mile grade (about 1.5%). Unbeknown at the time, Mathyas had made a grave error. His measurements had indicated that the divide south of Cedar Mountain was only 1600 feet higher than Green River; later measurements proved the divide actually was 2300 feet higher. Possibly Mathyas' aneroid barometer, the instrument generally used in those days to determine approximate elevations, had either become damaged in travel, was improperly set, or was just outright misread. However the error was made the Denver management set about on an expensive debacle.

The line from Dead Horse Crossing (Price) south to Castle Valley Junction was located between April 26 and May 25, 1881. This segment was 23 miles long and had a maximum grade of 75 feet to the mile. Location of the line from Castle Valley Junction east through the Buckhorn Flat area around the south side of Cedar Mountain began onMay 15 and was finished on July 27. Contractors were at once put to work constructing the actual roadbed grade over the two segments. The located line between Castle Valley Junction and Green River via the grade over Cedar Mountain was 54.2 miles. The climb over Cedar Hill was accomplished at an elevation of about 6300 feet. Though Chief Engineer Burgess' report does not indicate just what grade resulted from this location, it is estimated that probably a 2.2% grade westward was necessary, rather than the 1.5% which had been hoped to be obtained.

During the period from mid-May to December 23, 1881, construction proceeded in earnest on the Cedar Mountain-Castle Valley Junction alignment between Price and Green River. The sum of $180,269.00 was spent on this 77.2 miles of grading, which was done to within 95 per cent of completion. However, not one tie was ever bedded or a spike driven on this grade. Abruptly, word was received from Denver to cease work on the Cedar Mountain alignment and instead to at once resume work on the idled concept of producing the line east from Price via Grassy Trail Creek and the Price River to Green River. Beginning December 23, 1881, the Grassy Trail alignment work was resumed.

If any grading ever was done on the segment between Salina Pass and Castle Valley Junction, records provide no indication of accomplishment. This segment, as well as the aborted abandoned graded line, would bask in the sun unused forevermore.

As a result of a personal aerial survey 100 years later, two enigmas developed upon viewing the unfinished line from the air. A faint trace of grading was observed taking off from the documented line along the south side of Cedar Mountain and traversing toward an opening south of Buckhorn Flat which, if continued, would have cut the distance between Green River and Salina Pass by several miles, bypassing the Castle Valley Junction site. The evidence of work on grading was lost in the narrow canyon about three miles from the point of divergence from the graded line, and a visit on the ground the next day failed to produce any evidence of significant grading. This faint line, however, is observable from the top of Cedar Mountain. Also, just west of Green River near the site of present Sphinx siding, evidence was observed from the air suggesting that an initial thrust of grading was done from the Saleratus Wash grading (the Cedar Mountain-Castle Valley alignment) through a narrow opening in the mounds of decomposed shale to a junction with the completed line near Sphinx siding. Again, a site visit on the ground failed to verify what was seen from the air, but this segment was not used and a different alignment was built between Green River and Sphinx not using the southern or Cedar Mesa route.

The present railroad distance from divergence of the Cedar Mesa grading at Green River to the point of convergence just east of Price is 61 miles versus the 77.2 miles via Cedar Mesa and Castle Valley Junction. The decision to abandon work on the Cedar Mesa route must have been an agonizing one for General Palmer and Manager of Construction Robert F. Weitbrec. Having sent instructions to Burgess on December 23, 1881 to discontinue the effort on the line via Castle Valley Junction, Weitbrec on January 14, 1882 sent George Goss to Utah

with an appointment circular which he was to promulgate upon his arrival, appointing him as head of all work in Utah and Nevada. Goss previously had been in charge of engineering location work in Nevada. Burgess was asked to stay on, but he no longer would have responsibility for the work in Utah.

On January 23, 1882, Micajah T. Burgess wrote a lengthy and urgent letter of explanation to General Manager David C. Dodge with regard to the original decision to proceed with the line via the south side of Cedar Mountain, producing letters and telegrams outlining Mathyas' involvement in the decision. Records of answers to Burgess' pleadings have been lost to posterity, and he has passed into obscurity.

Since the surviving records of this event are primarily Burgess' annual report written in December 1881, and his letter of objection to being relieved of command in January 1882, we obviously have only one side of the story. His story is quite plausible however, and it is apparent that the head office heeded Mathyas' judgment, then blamed Burgess when things went wrong. Among the charges against Burgess in January 1882 are those of "excesses in construction." An examination of the work done on this line fails to provide any evidence to substantiate this charge. It seems rather apparent than an early version of corporate politics was at play here.

Goss evidently did not produce an annual report at the end of 1882 as did Burgess the preceding year. This is unfortunate as it would have been most interesting. We do know that location work was completed and much grading done on the Grassy Trail-Price River alignment. D&RG construction forces building west from Grand Junction had reached the Utah/Colorado border by the end of 1882. The precise amount of track built east from Clear Creek by the D&RGW Ry. in 1882 is not known, but it must have completed construction to somewhere in the vicinity of Castle Valley (later Price) or perhaps some distance on east.

Continuing construction, eastward and westward building forces joined the narrow gauge rails across the Utah desert a short distance east of Desert Siding on March 30, 1883.. Though somewhat shorter than the line via Castle Valley Junction would have been, it was not without its problems. Frequent flooding washed out the line down Grassy Trail Creek and the Price River during the period of narrow gauge operation between 1883 and 1890. In 1889 a relocated standard gauge line was constructed between Mounds and Lower Crossing, eliminating the lower Grassy Trail Creek-Price River alignment by a climb over the edge of the northern San Rafael Swell, cresting at the present location of Cedar siding. This route includes the ruling grade, 1.16%, between Grand Junction, Colorado and Helper, Utah. In addition the long segment of narrow gauge line between Crevasse, Colorado (1.5 miles east of present day Mack) and the present location of the siding of Whitehouse, Utah, was replaced in 1889-1890 with a standard gauge route following West Salt Wash and the Colorado River through Ruby Canyon to the confluence of Westwater Wash, thence turning north over a divide through hilly country to Whitehouse. Standard gauge operation between Ogden, Utah and Grand Junction, Colorado on the Rio Grande Western began in June 1890, but through operation to Denver on the "broad gauge" was delayed until completion of the D&RG from Rifle to Grand Junction. Through service on the D&RG and RGW began November 15, 1890.

Over the Wasatch

Divisions No. 3 and No. 4
Provo to Pleasant Valley Coal Mines and
Clear Creek Station to Dead Horse Crossing (near Price)

The Utah & Pleasant Valley Railway

With the migration of Mormon immigrants into Utah Territory beginning in 1847, and with population rapidly fanning out up and down the west face of the Wasatch Mountains and into the valleys south and west of the Great Salt Lake, one of the chief concerns of the residents was an inexpensive source of fuel. The arrival of the Union Pacific in 1869 gave hope that the coal deposits in the valley south of Echo could be developed and coal brought into Salt Lake City inexpensively. Alas, this was not to be. The Union Pacific took full advantage of its geographic monopoly and charged as much to haul coal from Echo as from its own coal deposits in western Wyoming. To the dismay of the Utahns, coal shipments from the vicinity of Coalville were almost as well handled by wagon over the Wasatch as by the UP.

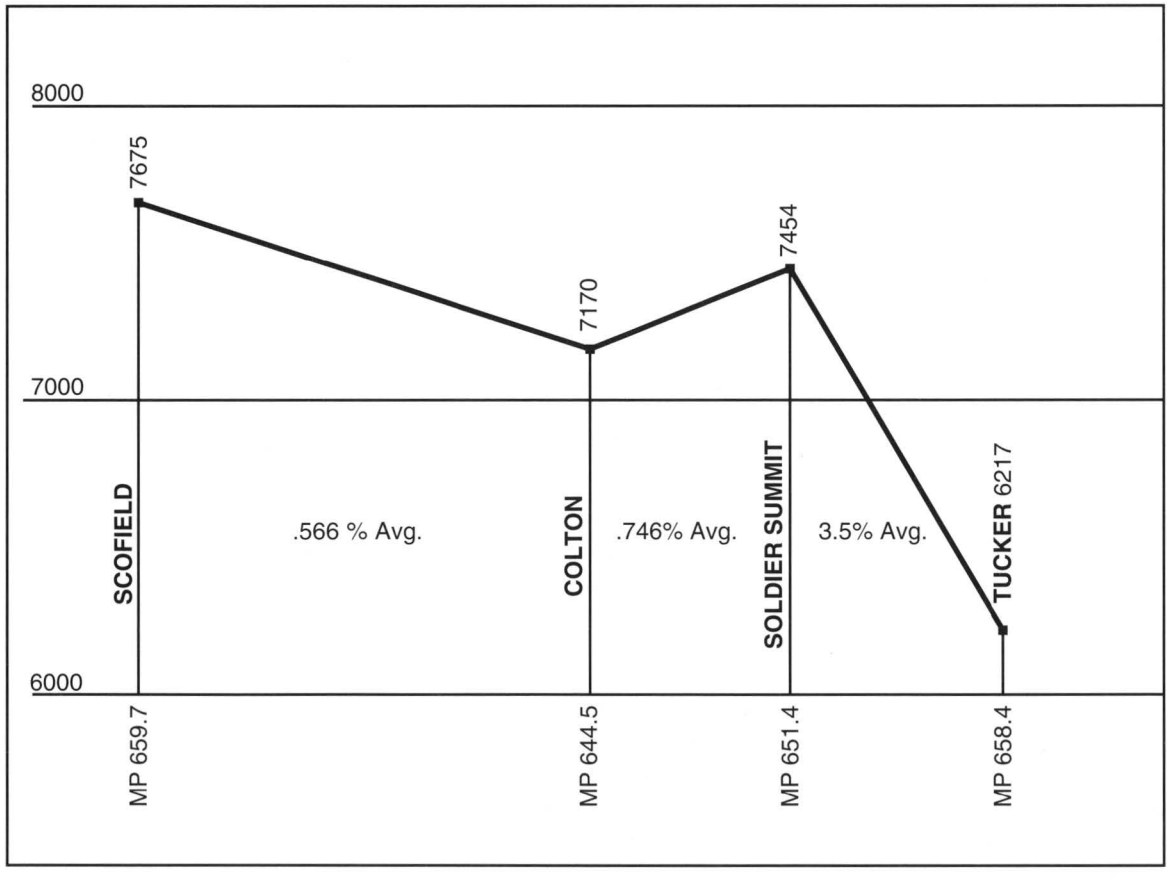
In 1875, large deposits of mineable coal were discovered in Pleasant Valley, which is located several miles southwest of Price River Canyon. The principal town there today is Scofield. Following this discovery, a group of Springville citizens decided to develop the coal deposits, and on December 10, 1875, organized the Utah & Pleasant Valley Railroad. The purpose of this venture was to produce coal and ship it by rail to Springville. There also would be access to markets farther north via the

standard gauge Utah Southern Railroad, a Mormon road which had just completed a line between Salt Lake City south through Provo and Springville

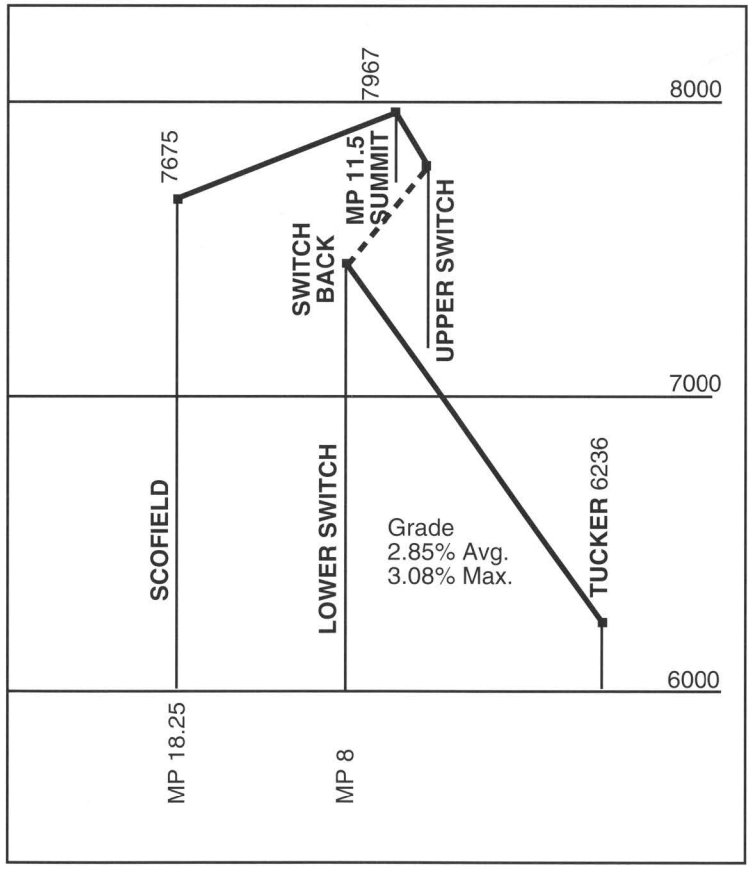
Among the organizers was J. Fewson Smith, an engineer who was placed in charge of locating and constructing the line. Following the example of the Denver & Rio Grande in Colorado, which by that time had built its line between Denver and the coal fields near Canon City and Florence, the U&PV organizers decided to build their line to narrow gauge dimension. Unfortunately, in an outburst of Utah conservatism, they elected to use rail weighing 25 pounds per yard, as opposed to the original D&RG construction that used 30 pounds per yard. As the D&RG soon found out, small locomotives and 30-pound rail were inadequate, and in a very short time, the U&PV must have discovered the same thing, as its locomotives and four wheel cars were quite small.

In the autumn of 1876, the Springville organizers obtained some financial backing for their project from Charles W. Scofield, a New Yorker then president of the Wasatch & Jordan Valley Railroad and the Bingham Canyon & Camp Floyd Railroad. These two narrow gauge lines had been built east and west of Sandy, Utah, respectively, to reach the mining districts of Little Cottonwood Canyon and Bingham Canyon. Sandy was a station south of Salt Lake City on the Utah Southern standard gauge. No grading had yet been done on the Utah & Pleasant Valley line. The introduction of. Scofield into the project was to have far-reaching effects four years later when Palmer's D&RG group acquired both W&JV and BC&CF.

Grading for the Utah & Pleasant Valley began in April 1877, obviously with a small force. No track laying was done until August 29, 1878, and only a few miles were laid up Spanish Fork Canyon that year. It is said that funds were so tight that some of the workmen were paid in bolts of cloth from a Springville store, giving rise to a commonly used nickname for the road at that time of "The Calico Road."

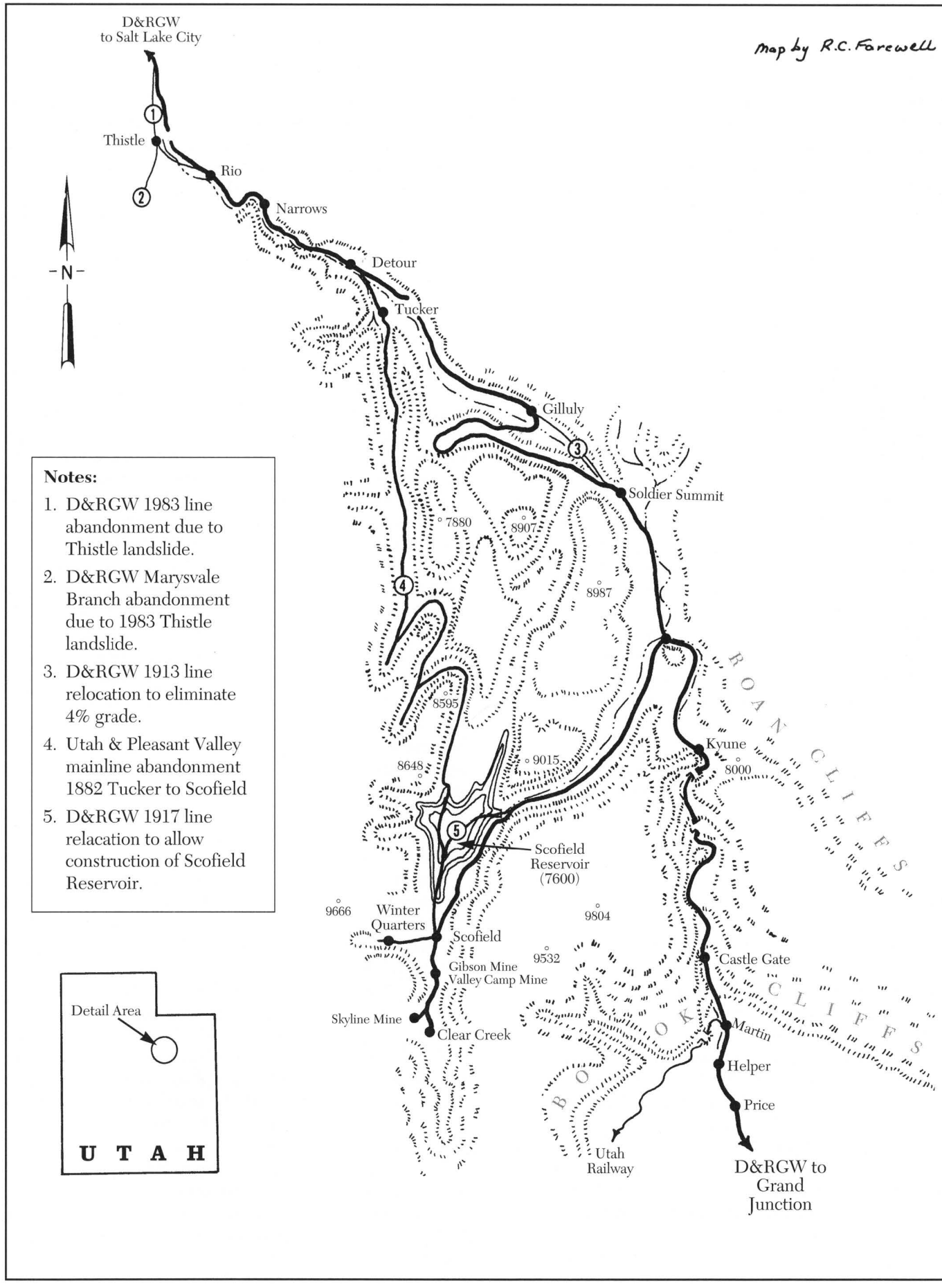


A westbound narrow gauge freight train, with what appear to be coal gondolas from Scofield at the rear, pauses at Pleasant Valley Junction(later, Colton), about 1885. (Junius Young photo, Fred W. Voll collection)



To the left are comparative profiles of the D&RGW Ry. narrow gauge line into Pleasant Valley versus the original Utah & Pleasant Valley line, which displays a more rugged character. the D&RGW alignment from soldier summit to Colton and Scofield is still in use; the 3.5% Soldier Summit-Tucker grade was replaced by a longer, less steep grade in 1912 and was later used as a highway route (U.S. 6). (drawn by John W. Maxwell, Jr. from information compiled by John W. Maxwell, Sr.)

A trio of GP40s has just completed loading a train of coal at Valley Camp, Utah, and is preparing to pull down for the caboose to be dropped on. Train 781 will soon depart for the valley of the Great Salt Lake on July 20, 1979, with more coal than the Utah & Pleasant Valley probably carried in two or three months a century before. The long unused load tipple and drop tracks at Clear Creek are looking somewhat forlorn by June 9, 1980. In a few weeks, these will be razed and the site used for mobilization for the Southern Utah Fuel Company mine and coal loadout being built up a nearby canyon. (both, J.L. Ozment)


Map by R.C. Farewell
D&RGW
to Salt Lake City
Thistle
Rio
Narrows
Detour
Tucker
Gilluly
Soldier Summit
7880
8907
8987
8595
8648
9015
Kyune
8000
ROAN CLIFFS
Scofield
Reservoir
(7600)
9666
Winter
Quarters
Scofield
9804
9532
Gibson Mine
Valley Camp Mine
Skyline Mine
Clear Creek
Castle Gate
BOOK CLIFFS
Martin
Helper
Price
Utah
Railway
D&RGW to
Grand
Junction
-N-
Notes:
1. D&RGW 1983 line abandonment due to Thistle landslide.
2. D&RGW Marysvale Branch abandonment due to 1983 Thistle landslide.
3. D&RGW 1913 line relocation to eliminate 4% grade.
4. Utah & Pleasant Valley mainline abandonment 1882 Tucker to Scofield
5. D&RGW 1917 line relacation to allow construction of Scofield Reservoir.
Detail Area
U T A H

Building up the Spanish Fork

A station called Clear Creek was established at the point of intersection of Soldier Creek, Clear Creek and Starvation Creek. Much later this location was renamed Tucker. Engineer J. Fewson Smith then elected to build the U&PV up Starvation Creek, as it was then called, and switch back over the Wasatch summit at a pass which allowed direct entry into the coal fields of Pleasant Valley. An alternate, longer route would have put the line over Soldier Summit, thence down to Fish Creek and up that stream into Pleasant Valley. Unfortunately, Smith elected not to follow the latter, and it was left to the D&RGW Ry. to later construct this line. Smith's U&PV crossing of the Wasatch was some 500 feet higher than Soldier Summit, in a country where just a few feet difference in elevation can make a considerable difference in snowfall.

Charles W. Scofield gained control of the railroad in October 1878. Work on grading and track laying was suspended during the winter of 1878-1879, then resumed in earnest with the coming of spring. Finally, on November 5, 1879, the lightly constructed line, hardly more than a mine tram, was completed to a coal mine developed at Winter Quarters, a side canyon south of Pleasant Valley. At the mouth of Winter Quarters canyon a town was laid out and given the name of Scofield. It is most likely that only a few trains were run on the U&PV during the remainder of 1879, as the snowfall on the Wasatch summit would be too severe for the small Porter locomotives to force their way through the drifts at that elevation. Winter Quarters, named in honor of the original Mormon pioneer wintering near Council Bluffs, Iowa, no doubt became just that for the planners of Utah's coal industry.

Beginning in 1880, it can be assumed that operation of the Utah & Pleasant Valley Railway began in earnest. No pictures of this railroad or of its operation have been found, despite a number of photographers known to have been in the Salt Lake Valley during this period. Possibly the negatives have been destroyed, if any were ever taken of this road, but one would expect to find some prints of them eventually.

The road owned one Baldwin and two Porter locomotives, which would automatically restrict coal production and shipments to a relatively small amount. It is believed that the line operated at least one train per day. The best description presently known of the line comes from Frank Hodgman's earlier writing presented in this article. With the small cars and light rail, profitable operation would have been impossible in any contest with the obvious capability of Union Pacific's standard gauge cars out of Wyoming. Other "Mormon Road" operations around Coalville and the competition from the San Pete Valley Railway, then building a line from Nephi to Wales, also would tend to downgrade the economic viability of the Utah & Pleasant Valley.

On the positive side, U&PV's route from Springville at least as far as Clear Creek station was attractive to any other railroad promotion intending to build from the Salt Lake Valley into the coal fields of central Utah. Fortunately for the Rio Grande, its purchase of the Wasatch & Jordan Valley and the Bingham Canyon & Camp Floyd lines no doubt put Charles W. Scofield firmly in the D&RG camp. In correspondence dated September 21, 1881, General Palmer stated that he had control of the U&PV. If this was true, then it explains the apparent indifference to the existence of the U&PV, as Palmer set about constructing the rest of his lines in Utah during 1881 and 1882. The threat of the Union Pacific building into this area was no imaginary menace.

Backed by UP interests, the Pleasant Valley branch of the Utah Central Railway was chartered October 10, 1881. Mormon Bishop John Sharp, a close associate of Union Pacific president Sidney Dillon, took charge of grading in lower Spanish Fork Canyon just above Springville. Grading began in November 1881. Again, with records of the happenings in 1882 somewhat indistinct, it is not known just how much grading was done by Union Pacific forces. Whatever work they had done was obliterated first by construction on the unfinished grade by the Utah Railway in 1912, and later by the Utah Highway Department, which presently occupies the alignment between the mouth of Spanish Fork Canyon and just east of old Castilla siding. The efforts of the Rio Grande to build around the Thistle landslide in 1983 placed the railroad as a fourth generation interest in the alignment on the east side of the canyon between old Castilla and Thistle. Before Utah Railway completed its 1912 grading through Spanish Fork Canyon, it instead entered into a joint trackage agreement with the Denver & Rio Grande which is still in effect today. The proposed goal of the UP-backed railroad was the Union Pacific mine at Scofield, operated for a number of years and served by a spur of the Denver & Rio Grande Western.

The issue of occupancy of lower Spanish Fork Canyon between the Utah Central and the Denver & Rio Grande Western Railway was solved by an agreement in which the Utah Central agreed not to build its line parallel to the D&RGW Ry. for a period of five years beginning August 1, 1883. In return, the D&RGW Ry. promised to build a spur to the UP mine at Scofield no later than August 1, 1889. This the Rio Grande did. There is a picture of this construction taken by George Edward Anderson that is often credited as being a photograph of many other places on the old D&RGW. In addition to the construction date limitation, D&RGW Ry. agreed to furnish cars to transport coal from the UP mine to transfer tracks at Provo at a rate of $1.25 per ton up to 500 tons per day, and at a lesser rate for greater production. Since the D&RGW Ry. was narrow gauge, the coal would have to be transferred to standard gauge cars of the Utah Central at Provo. Evidently it was done this way.

As location and construction on the narrow gauge Denver & Rio Grande Western moved into the area of the Utah & Pleasant Valley, some hard decisions had to be made. There were two viable alternatives.

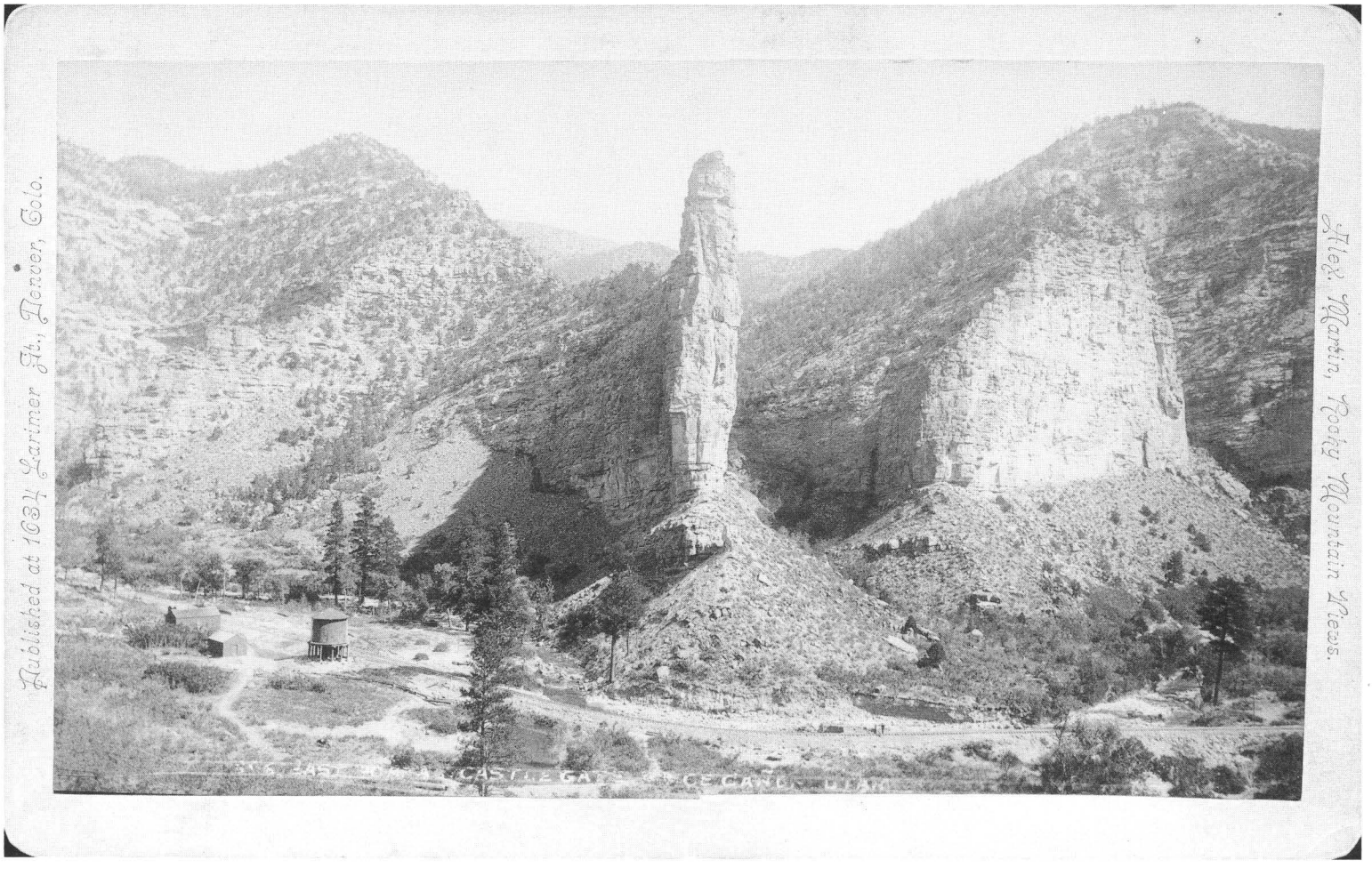
The most obvious was to build from the hamlet of Price west up the Price River drainage to Fish Creek, then up Fish Creek into Pleasant Valley to join the U&PV line. That could be followed over the Wasatch summit down the switchbacks into Starvation Creek and then on to Springville.

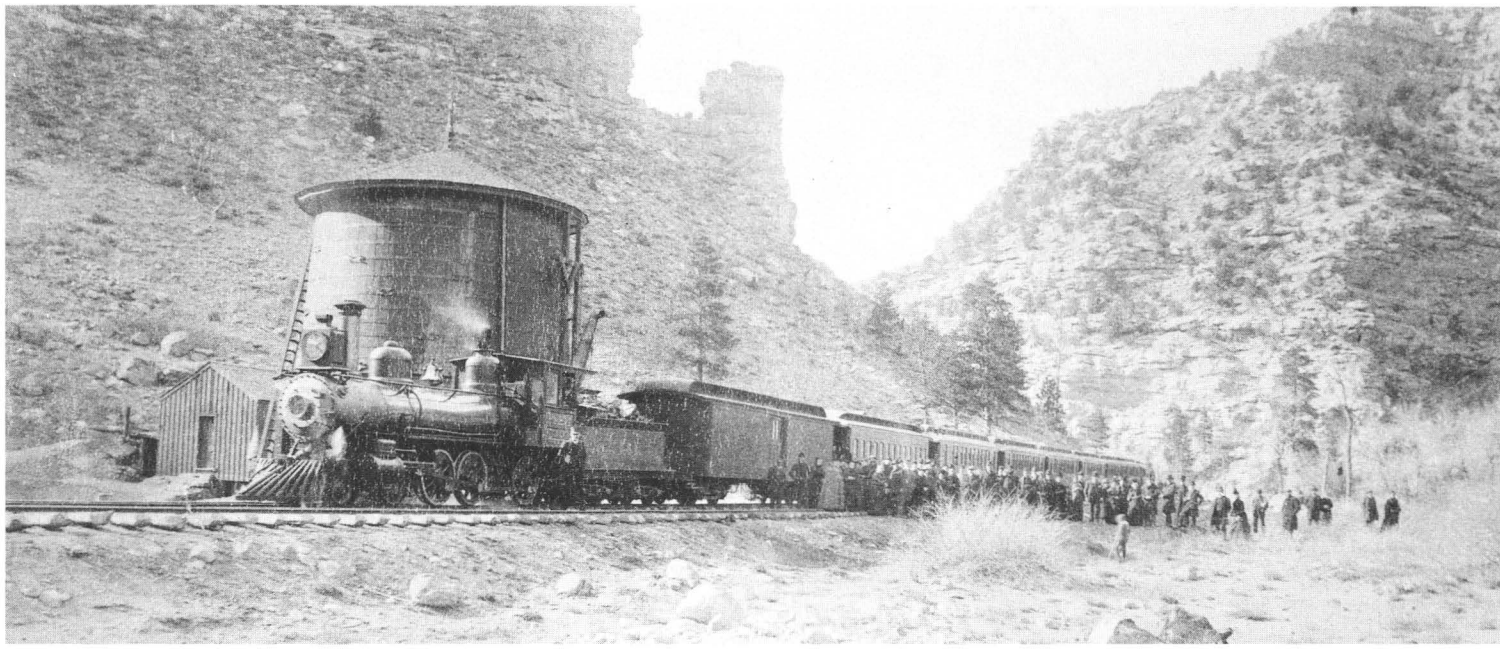
A more practical alternative was to build up the Price River to the junction of Fish Creek and the White River, then up the White River drainage across Soldier Pass and down to Clear Creek Station on the U&PV in the Soldier Creek drainage. A four per cent grade would be required on the west side of Soldier Pass, but no switchbacks would be needed. In addition, the Wasatch Range at Soldier Pass could be crossed at an elevation some 500 feet lower than the U&PV's crossing some miles the south. Also, the through line via Soldier Pass would be much shorter than trying to use the full length of the Utah & Pleasant Valley. Intelligently, the Soldier Pass route was adopted, and construction was inaugurated. Six-thousand feet of track from Clear Creek station toward the summit of Soldier Pass was laid in 1881 before winter weather brought such activity to a halt. Track construction resumed in 1882 building eastward on over Soldier Summit and down the White River/Price River alignment into the Utah desert. This is the alignment upon which Engineer Frank Hodgman had done location work in July and August of 1881.

The Utah & Pleasant Valley, in bankruptcy, was purchased by General Palmer on the steps of the Utah County courthouse in Provo on June 13, 1882. That portion of line from Provo to Clear Creek station was rebuilt using a better grade and alignment and with 30-pound rail replacing the 25- pound rail that U&PV had originally laid.

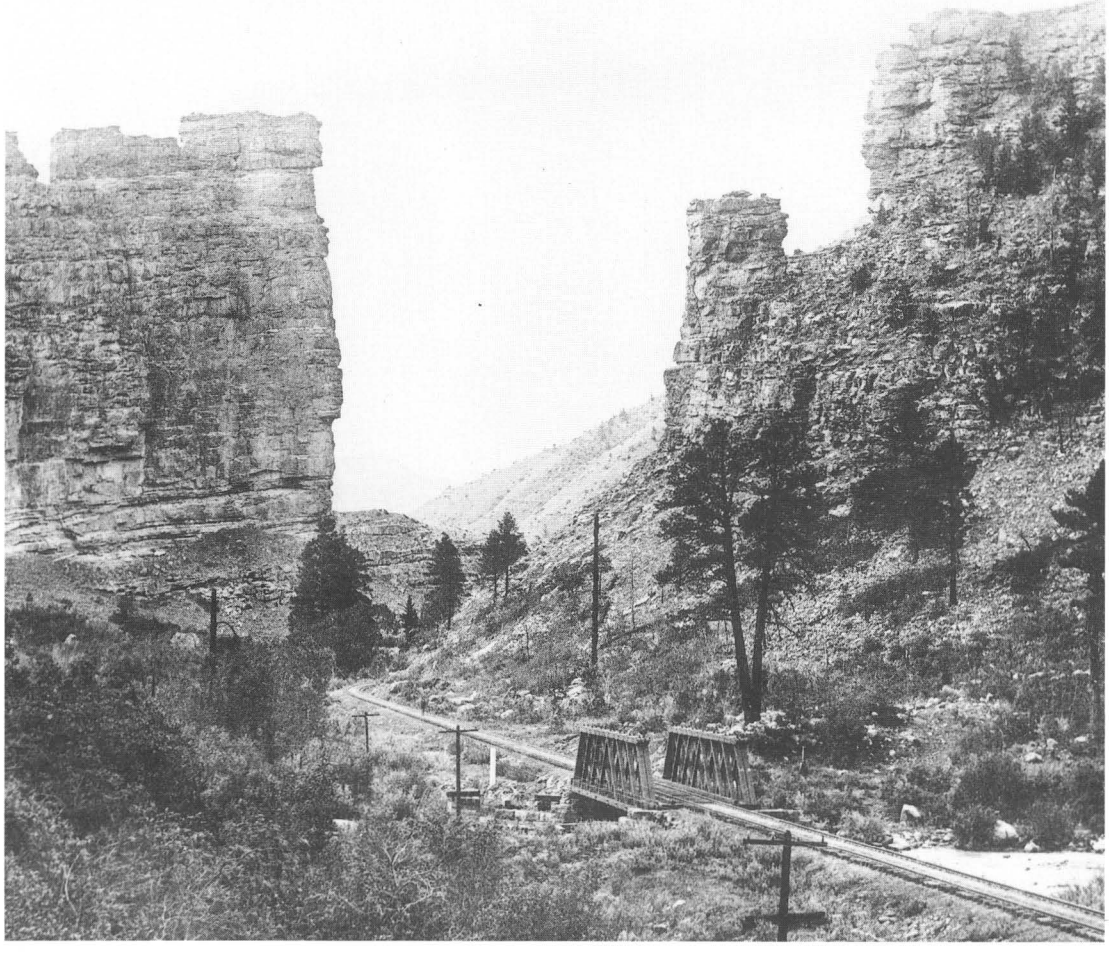
Pioneer Salt Lake City photographer Charles R. Savage captured this "Scene in Price Canon, Utah. R.G.W Ry." about 1892. (Alice Martens collection)

"Barkalow Brothers R.R. News Agents, Denver, Colo." is stamped on the backs of these photoplasters of a narrow gauge stub switch beneath Castle Gate and a panoramic view directly toward the prow of the formation, including the watertank and depot to the left. (Museum collection)

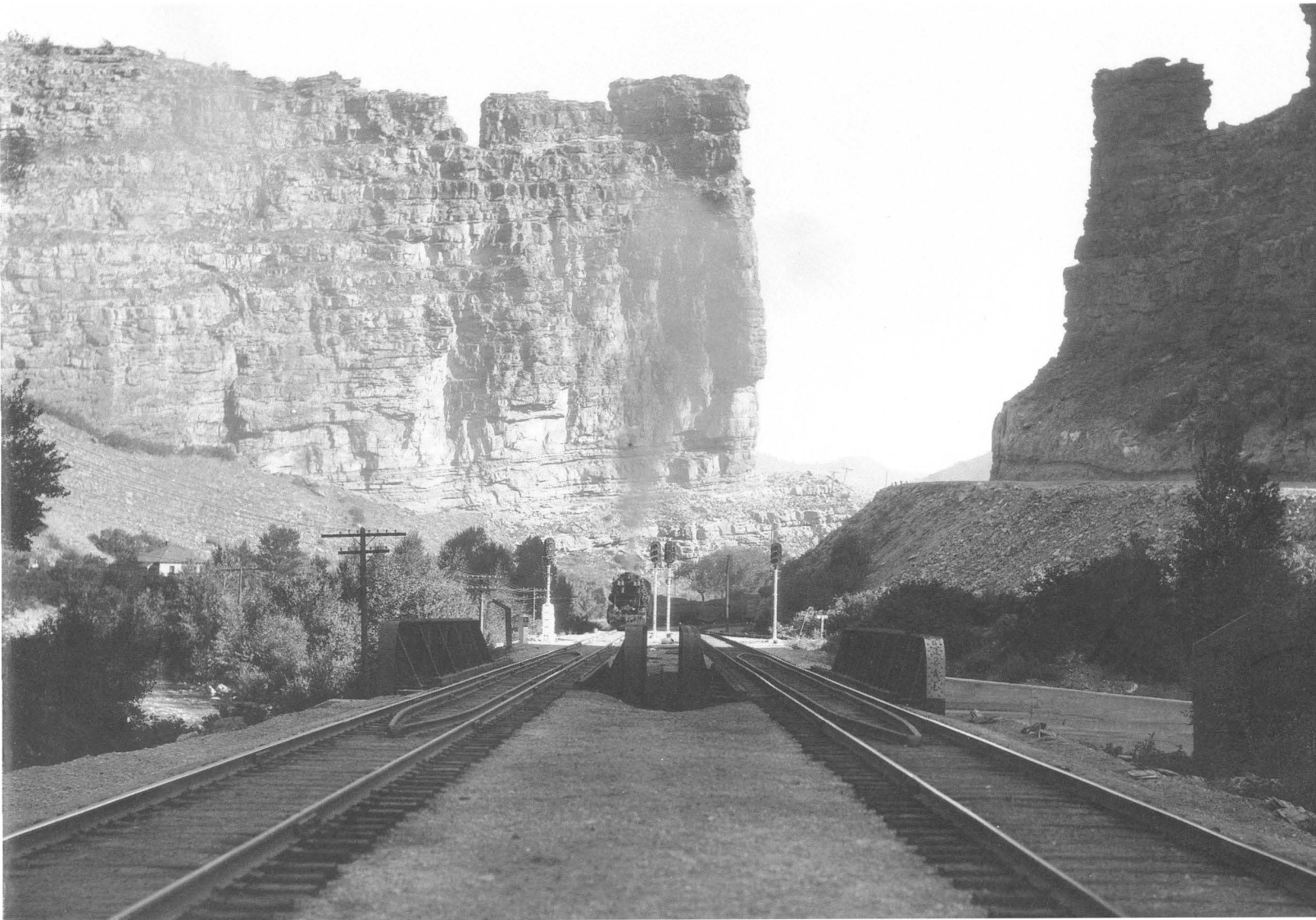


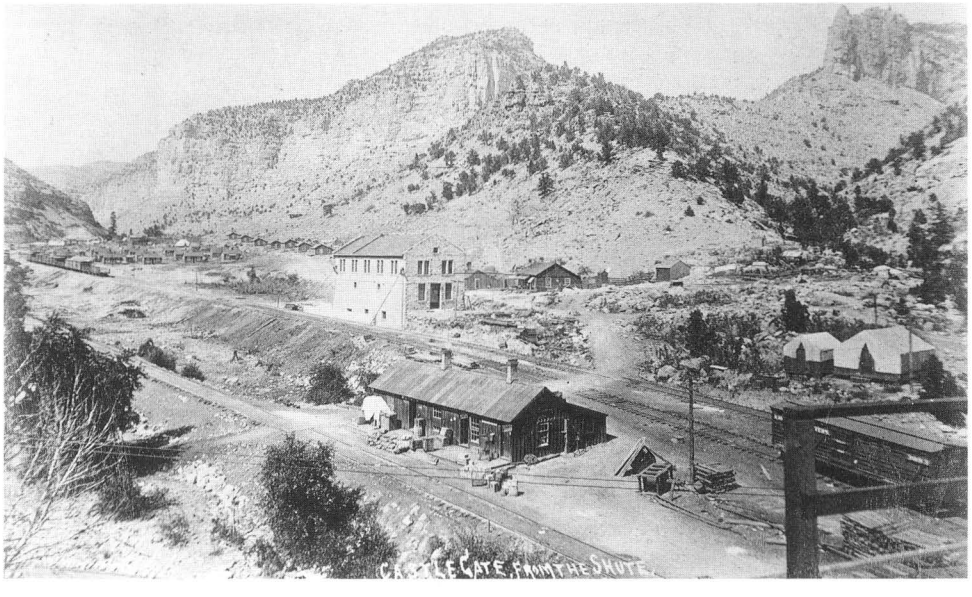


Denver & Rio Grande Western Railway narrow gauge Tenwheeler No. 30, formerly on the roster of the Denver Circle Railroad, has stopped for water at Castle Gate, April 18, 1887. Passengers have detrained from the nine-car excursion to view the towering rock formations on either side of the track. The location is just behind the rock outcropping at the left center margin of the modern view below. (Junius Young photo, Museum collection) At the site of surveyor Francis Hodgman's campsite some 97 years earlier, the Rio Grande Zephyr *passes the coal loading facility at Castle Gate. The site of the town of Castle Gate has, in this October 3, 1978, view, been replaced by coal loading machinery of the Northern Indiana Public Service Company. (J.L. Ozment photo)*



Careful inspection of the two photographs reproduced on this page reveals that the track above is still narrow gauge, while the view at left was made shortly after conversion to standard gauge. (Left, George E. Mellen photo; both Utah State Historical Society) Four decades of evolution at Castle Gate are evident by comparing the above opposite view of a double-headed narrow gauge passenger train with the one of a distinctive Rio Grande mallet steam locomotive climbing through the much photographed formation about 1928. In the 1960s the Utah Highway Department cut the south rampart away to widen the roadway of U.S. Highway 6. (Utah State Historical Society; George L. Beam photo, J. L. Ozment collection)





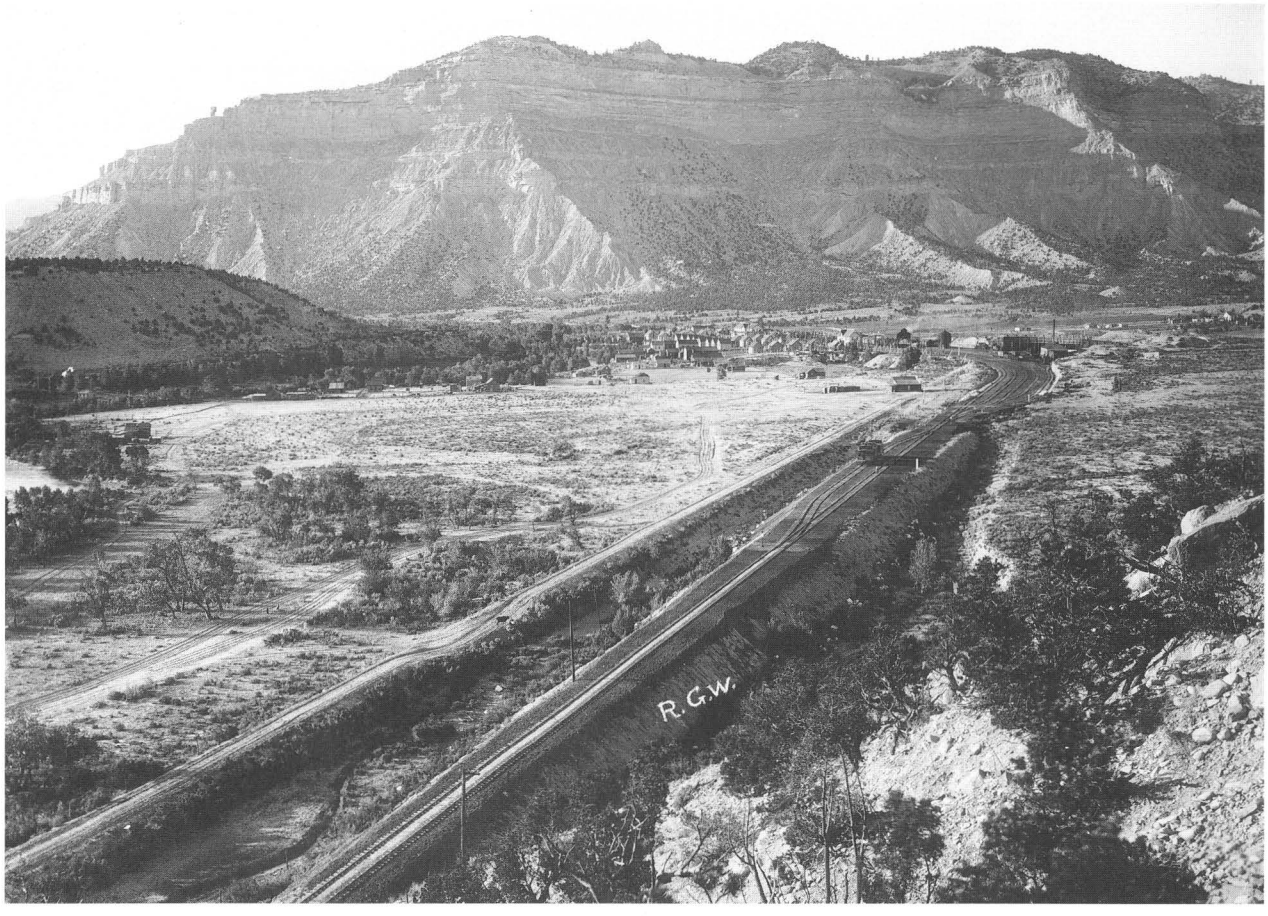
From a vantage point now obscured by a Utah Power & Light Company steam power plant, D&RG photographer George L. Beam photographed the loading yard of the old Castle Gate mine. Willow Creek flows through the center of the picture toward its junction with the Price River just out of sight to the left, circa 1928. (J.L. Ozment collection) Probably taken by Charles R. Savage, this panorama (left) dates from about 1891 and is titled "Castle Gate from the Shute" of the Pleasant Valley Coal Company. (Alice Martens collection)

Frank Hodgman himself took this collodian wet-plate of his rodman, C.H. McIntyre, chopping wood while one of their recalitrant pack mules stands nearby. Picks, axes, survey rods and a big horn sheep skull decorate the miner's hut they occupied near "Willow Creek, Wasatch Mountains," now the site of Castle Gate. (Jackson Thode collection, courtesy of Alice Martens)

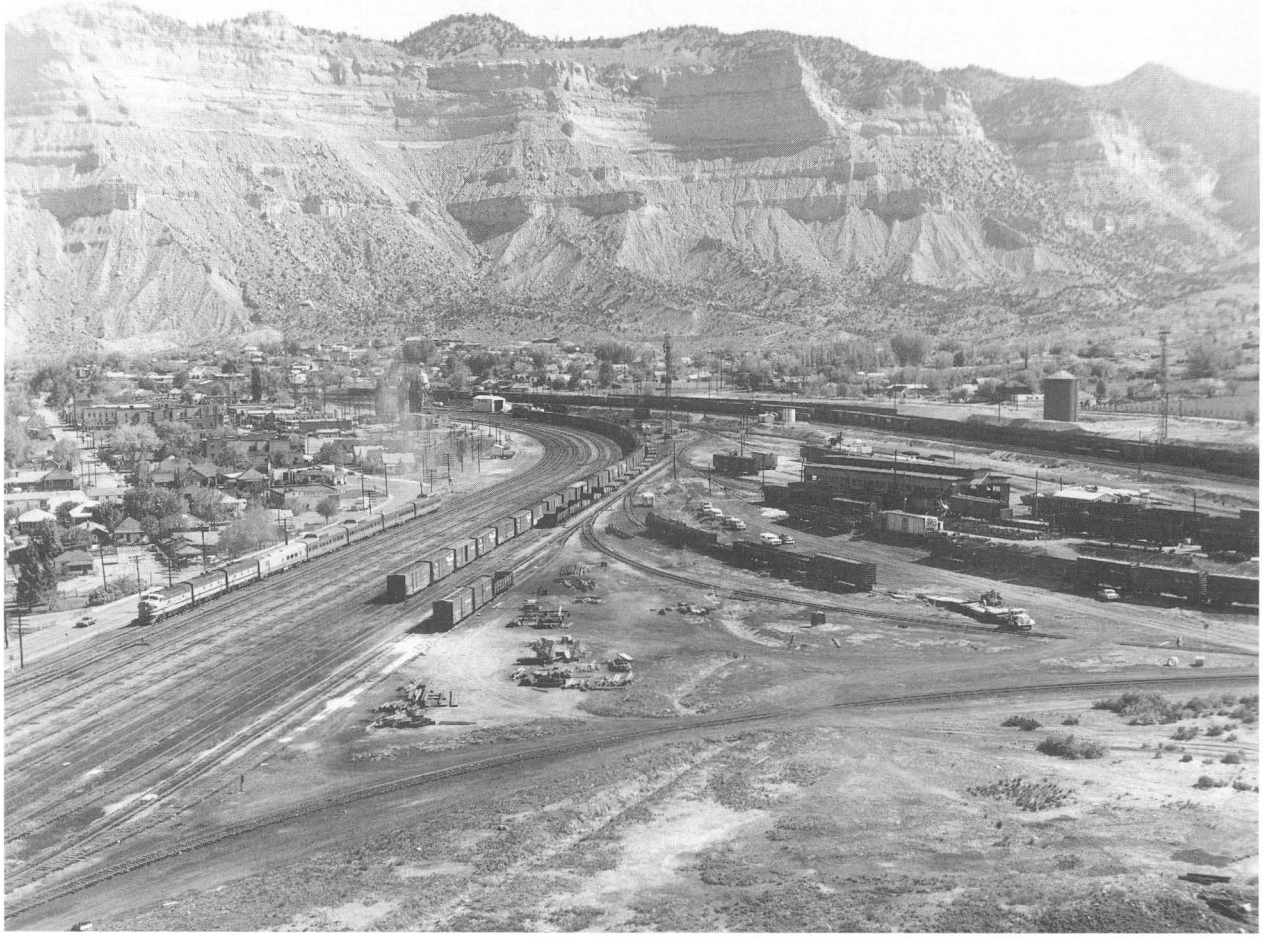
Dawn in the desert west of Thompson, Utah: although the scene looks timeless, there have been major changes to Rio Gande's right-of-way over the years. The head end of the eastbound manifest seen in this image is leaving the trace of the 1881-1882 grade and continuing down a more recently constructed tangent designed to eliminate a curve deemed too sharp by modern standards. The beginning arc of the abandoned 1881-82 curve remains visible as the abandoned cut seen just above the last diesel unit. (two photos, R. C. Farewell)

Evidence of the desert grade alignment can be found here and there, if one takes the time to look. A set of sawed-off bents from an abandoned trestle near Floy slowly decomposes into the dry desert "popcorn" soil.

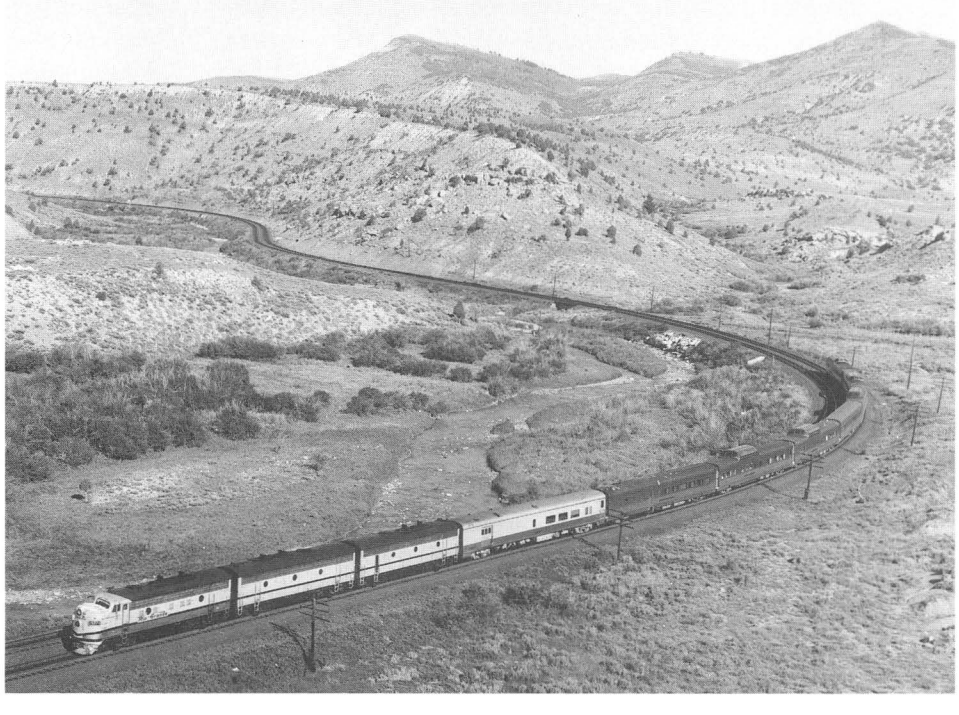
The philosophy used for the construction of the narrow gauge desert mainline was straightforward: build as quickly as possible with a minimum expenditure of heavy construction work. The objective was to avoid all obstacles. The resulting narrow gauge alignment was a continuous series of never-ending curves that avoided each hill and hollow. Some sections of the original mainline, like the lower Price River alignment, required abandonment before seeing significant revenue traffic. Other sections were abandoned during the reconstruction that was in the conversion of the mainline to standard gauge in 1890. In any case, evidence of the 1880s construction remains in place, albeit decomposing back into the desert soil. Unused hand-cut stone culverts, abandoned trestles, a long-forgotten tunnel and decaying construction camps remind the curious visitor of the effort expended to lay a steel spiderweb across the West.



In 1901 Rio Grande Western had just completed reconstruction of its east approach to Helper, as shown in this superb photograph. The abandoned fill of the earlier narrow gauge track runs to the left of the main and caboose tracks. (George E. Anderson photo, Jackson Thode collection) This overall view of the Helper yard, taken May 30, 1975, contrasts with the Anderson view of the 1890s. The famed Rio Grande Zephyr *is departing under the ramparts of the timeless Bookcliffs, on its way to Denver. (J.L. Ozment photo)*



(above)On May 27, 1979, the eastbound Rio Grande Zephyr *begins its journey across the Utah desert. The community of Spring Glen, located between Helper and Price, is seen in the background with the ever-present Bookcliffs in the distance. (right)In the upper canyon of the Price River, on September 16, 1980, the Denver-bound Zephyr traverses the line laid out by Hodgman a century earlier. Centralized Traffic Control allows trains to run eastward on the westward track if desired, as No. 18 is doing this day. (both, J.L. Ozment)*



Pleasant Valley Branch, D&RGW Railway

As soon as the Utah & Pleasant Valley Railway was acquired in 1882, it was decided to construct the D&RGW Ry. line up Fish Creek into Pleasant Valley, connecting with the U&PV just below Scofield. The decision to abandon the use of the U&PV line between Clear Creek and the mines near Scofield was made in October 1882, shortly after the D&RGW Ry. acquired the line. An alternate line was constructed in late 1882 and completed by December 1 on an alignment up Fish Creek from a point called Pleasant Valley Junction (now Colton). Presumably the U&PV alignment was abandoned at that time as there was no known business on the segment thus replaced. The relocated alignment eliminated a steep grade against the loads of the Pleasant Valley and a heavy hand braking operation down the switchbacks into Starvation Creek. The new line up Fish Creek, once considered as a possible alignment for the mainline, is now known as the Pleasant Valley Branch. A major division point developed at the junction of Fish Creek and the White River (the origin of the Price River) and was named Pleasant Valley Junction. Later, this junction was named Colton, after a D&RG official, William F. Colton. An 11-stall brick roundhouse, turntable and coal platform were built there. Fortunately, photographs of this facility have survived.

Initially built as narrow gauge, the Pleasant Valley Branch, along with the mainline between Ogden and Grand Junction, was widened to standard gauge in 1889-90, by which time the line was under the corporate name of the Rio Grande Western Railway. The name change had occurred on June 24, 1889. Many of the coal deposits in the area around Scofield were consolidated under the Utah Fuel Company and its associated Pleasant Valley Coal Company, a wide ranging consortium of coal operations owned in large part by Rio Grande interests. A vast expansion of this coal/railroad empire transpired in the two decades following the standard gauging of the line.

The mines of Winter Quarters lay in a canyon about two miles south of the town of Scofield. The main defile of Pleasant Valley was in the drainage of what earlier had been called Mud Creek. Perhaps to improve the negative visual image generally associated with coal mining, the name of Mud Creek was changed to Clear Creek some time after 1881. This no doubt created some confusion with the place on the U&PV on the west slope of Soldier Summit which later became the helper station of Tucker on the "Western." In the 1880s the D&RGW Ry. constructed a narrow gauge line about two miles south of Scofield to reach the " Mud Creek Mines." After a few years of operation, these were closed, and the narrow gauge rails were removed between the mines and Scofield. The Union Pacific mine at Scofield continued in operation well into the twentieth century without benefit of Union Pacific railroad service, their coal being hauled out by the Rio Grande.

In 1901, New York financier George Gould purchased General Palmer's interest in the Rio Grande Western, acquiring also the Denver & Rio Grande and the Missouri Pacific to form a new railroad empire west of the Mississippi River. At the same time, a major development was undertaken at the head of Pleasant Valley at a place to be called Clear Creek. The Utah Fuel Company opened several major mine headings there, and a standard gauge line was constructed from Scofield, six miles up the valley, to the newly established town and mines. A small turntable was installed at the upper end of the railroad and was evidently in use for a number of years in the early part of the century. The grade on this new extension of the Pleasant Valley branch required the use of three per cent grades in places to reach Clear Creek. Although the coal loads were handled downhill, retainers were required to drop down the steep grade into the lower portion of Pleasant Valley and down Fish Creek into Colton.

In addition to locomotive servicing facilities at Pleasant Valley Junction (Colton), a yard and two-stall enginehouse were constructed at Scofield. Most of these facilities fell into disuse about 1919. By the time the terminal was moved from Soldier Summit back down to Helper in 1929, the major activity in the Pleasant Valley had been reduced considerably from the heyday of 1900-1920.

The mining of coal was never an occupation without peril, and this was graphically demonstrated on May 1, 1900, when the Winter Quarters Mine explosion and fire killed 200 men. Utah photographer George Edward Anderson travelled from Springville up to Scofield to photograph the disaster. His glass plate negatives reveal a great deal not only about the grief of the bereaved, but of life in the coal camps in general. The Scofield mine disaster was Utah's worst coal mining accident, followed closely by the Castle Gate explosion on March 8, 1924. The mine at Winter Quarters never again reached the pinnacle of activity of 1900, with major operations of the Utah Fuel Company thereafter being concentrated at new Clear Creek workings.

On June 24, 1917, heavy rains in the Wasatch south and west of Scofield portended trouble at the newly constructed dam on Gooseberry Creek. The waters gathering in the lake above the dam soon ate into poorly constructed footings for the earth and stone dam, and it gave way. A massive wall of water cascaded into Pleasant Valley, down Fish Creek and the Price River. The Pleasant Valley branch was almost completely wrecked for about ten miles above Colton. The mainline of the Denver & Rio Grande was washed out in numerous places down the Price River Canyon between Colton and Helper. The depot at Castle Gate was destroyed. Also demolished in the disaster was the timber trestle of the old Utah Southern Railroad at Price, forever dooming this ill-fated line which had for a time served the mines at Hiawatha and

Mohrland. These locations have since been served by the then newly constructed Utah Railway.

With World War I business in a frenzy, the washed-out D&RG mainline was quickly repaired, as was the Pleasant Valley branch. The line today in Fish Creek canyon exhibits the results of a very quick restoration, with lesser attention to the engineering principles of curvature and alignment generally used on railroads. The dam site was abandoned and sits today in a unfinished state overgrown with weeds, a grim reminder of the follies of man pitted against mother nature.

By the early 1920s another proposal was made to build a dam at the head of Fish Creek at its outlet from Pleasant Valley. An agreement was reached whereby the Pleasant Valley branch of the Denver & Rio Grande Western would be relocated from the siding of Hale (not to be confused with another Hale siding on the Heber branch) to Scofield. This would allow the bulk of lower Pleasant Valley to become a reservoir site, including the old junction point of the D&RGW's Fish Creek line with the original Utah & Pleasant Valley alignment coming in from the west. The six-mile line change was placed into service on November 11, 1925. With the completion of the dam, the flooding hazard on Fish Creek and the Price River was greatly reduced, although not completely eliminated. In 1938, a new dam was constructed just downstream from the old one, which had showed signs of deterioration. No one wanted to relive the experience of 1917. The 1938 reconstruction moved the railroad still farther up the hill at the dam site and caused several miles of realignment. Scofield Dam and Reservoir now provide good fishing for the citizens of Utah, as well as a steady supply of water and some flood protection downstream.

After the coal boom in the World War I years, the operation of the mines in Pleasant Valley began to wane and shipments dropped off. The branch trains operated out of Soldier Summit terminal from 1919 until 1929, when the large terminal there was moved back down to Helper. By the depression years service was down to one train per day and passenger service had been eliminated. The original mine in Winter Quarters canyon closed, and the extension from Scofield up the canyon was removed in 1933. The extensive switchback out of Scofield to the Union Pacific Mine was taken up in 1943. The small engine house at Scofield was no longer used, with trains operating as turns coming up from Helper.

World War II brought a resurgence of business, and the line once again saw multiple daily service. Again, after World War II business on the line slowly dropped off until by the 1960s, only the former Utah Fuel Company mine at Clear Creek was still operating. Train service out of Helper was provided by the "First Scofield" which made the turn to Clear Creek. The "Second Scofield" was called daily but only served the mines as far as Castle Gate. This train was also known as the "Castle Gate Switcher."

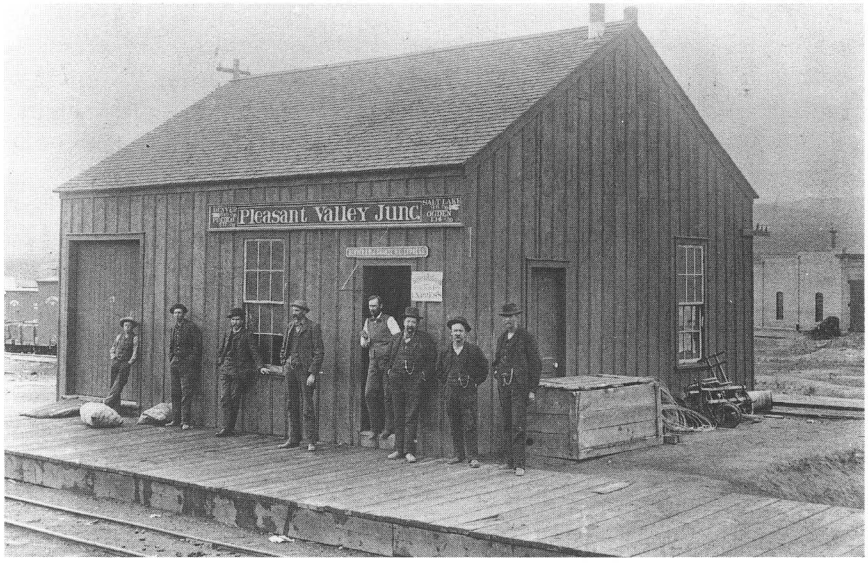
An old mine just northeast of Scofield reopened in the 1960s. This was the Columbine Mine, operated by Dr. Columbo of Helper. By 1967, the last run of the branch was made, as the sole surviving operating mine, the Clear Creek, had closed. For a number of years it did not appear that the branch would ever operate again. Events happening around the world however dictated otherwise.

By the early 1970s Pleasant Valley was derelict, with no rail service since 1967. In the later years of operation only minimum maintenance had been done. The section gang at Scofield, with the late Cliff Wilde as foreman, was cut off about 1962. The Colton gang performed maintenance as needed on the branch after that time. A solitary SD7 or SD9 diesel locomotive had made the mine run to Scofield in those declining years. From 1967 to 1970 operation on the Pleasant Valley branch consisted of an occasional trip by motorcar or Hyrail inspection vehicle, and occasional use of the Helper City Water Department. motorcar by fishermen from Carbon County. Although officially prohibited, a considerable clandestine motorcar operation was regularly done for hunting and fishing purposes. Indeed, when official inspections were in the offing, word was leaked through the Helper yard office that fishing trips that day would be cancelled until the regular inspection trip had been completed. Using spare and salvaged parts, even some of the Helper yard office employees had rigged themselves an operable motorcar to reach the desired fishing waters, otherwise inaccessible to the public.

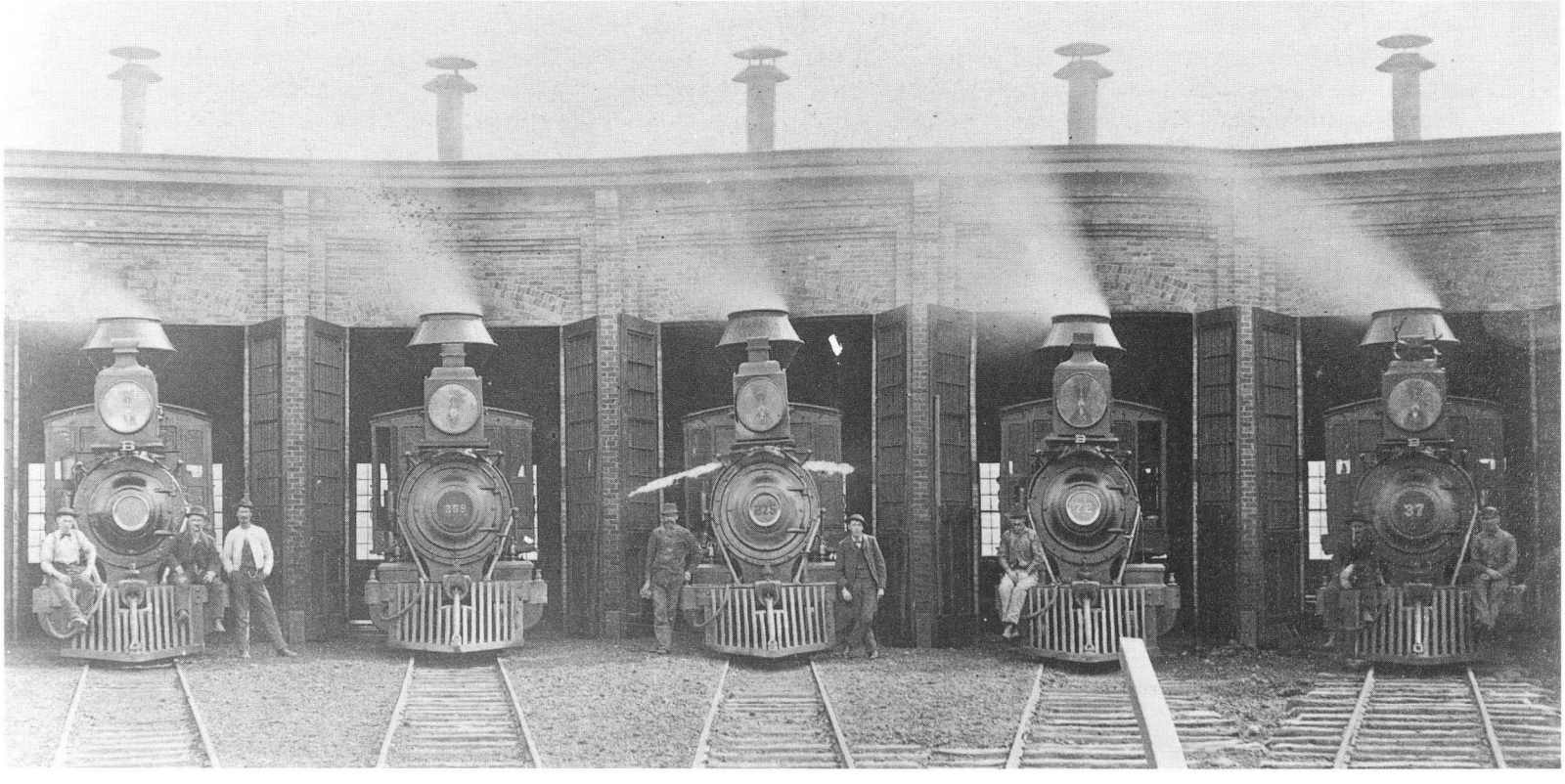
Around the world in the Middle East, the Organization of Petroleum Exporting Countries, more commonly referred to as OPEC, exercised their muscles in an attempt to dominate world oil markets. The resulting energy crisis worldwide had a major effect on the coal fields of eastern Utah. About 1973 the Valley Camp Coal Company opened mines above Scofield in the seam just above the location of the old Mud Creek mines of the 1880s. With no railroad in operation, the mining company was given permission to cover the railroad with a foot or so of dirt and begin its drifts, operating a "wagon" or "truck" mine. In a very short time, long-term extensive coal contracts were obtained for overseas shipments of Valley Camp Coal. An agreement was made with the Denver & Rio Grande Western for the rehabilitation of the branch between the mainline at Colton and the mine above Scofield. The entire line underwent a process known as "undercutting" or "sledding." New ties were placed where needed, and in the spring and summer of 1975, second-hand heavier rail was installed on those portions of the line which still had 85-pound rail. Later in the year, operation of the branch resumed with unit coal trains over the first 17.5 miles up to the Valley Camp Mine. Still later, a large mine in Eccles Canyon just below Clear Creek was opened by the Southern Utah Fuel Company. The new Skyline Mine was equipped with a conveyor and state-of-the-art load-out devices for unit-train loading. Valley Camp equipped its operation similarly. Into the 1980s, then, two operating mines regularly supplied trainloads to various locations in the United States and overseas. The construction of the Intermountain Power Project steam power station north

of Delta, Utah, also provided a market for several trains per week off the branch. In the same decade, additional upgrading and laying of heavier rail was done, and the future of the branch now seems secure. Present operations use four diesel locomotives and 84 cars. That portion of line between Skyline and Clear Creek, about two miles, is not currently operated.

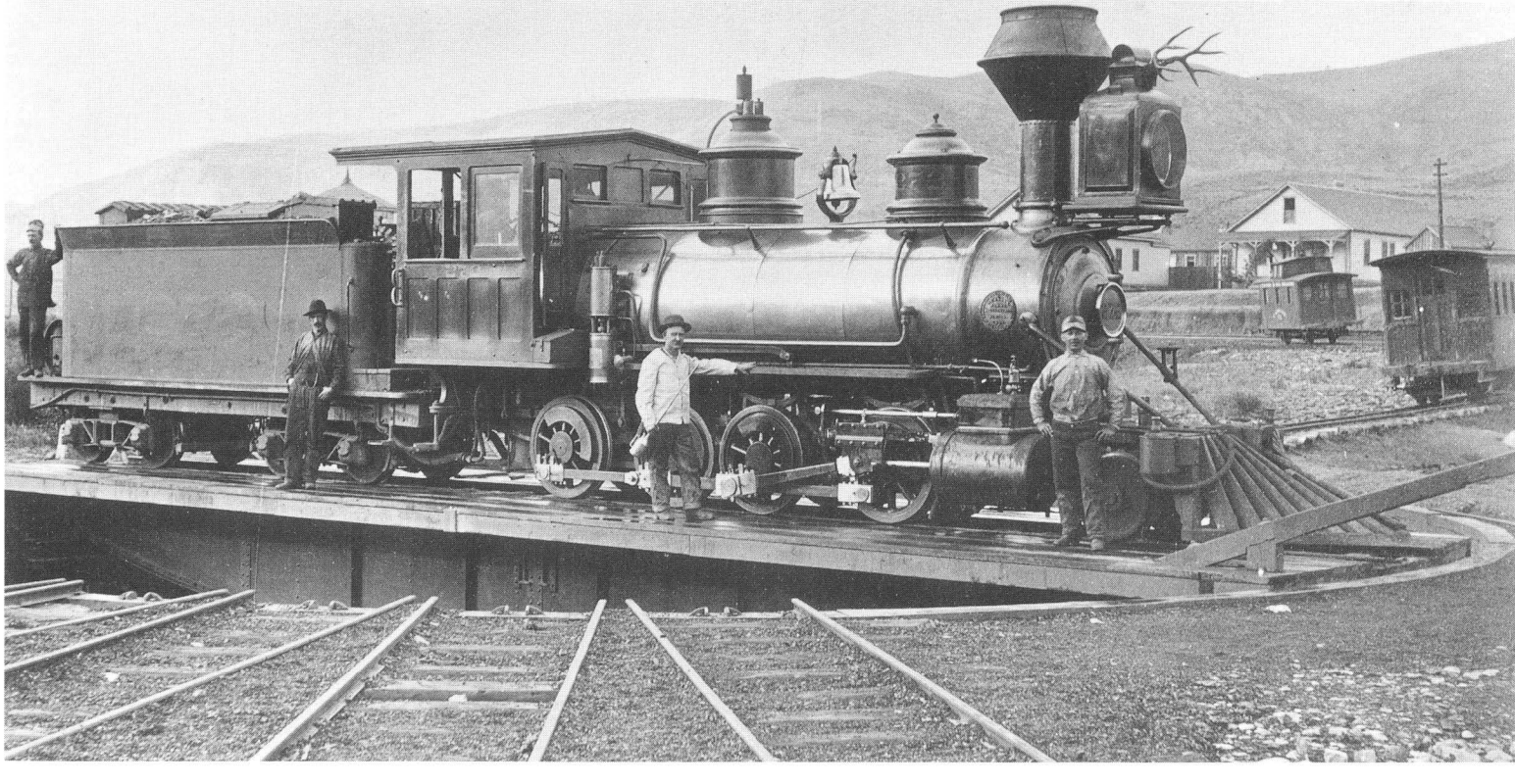
Despite the geographical difficulties in reaching the coal beds of Pleasant Valley, the original idea of the early Mormon pioneers such as Milan Packard and entrepreneurs such as Charles W. Scofield still has economic viability after more than 110 years. It is quite safe to say, therefore, that the Pleasant Valley development was a very valid and extremely viable concept.



No fewer than five gold watch chains are clearly in evidence as D&RGW Ry.'s Pleasant Valley Agent Lawrence(in doorway) and five other railroaders, including Chief Clerk Cunningham, Roadmaster John Egan, Engineer John Ercanbract, Engineer Morton and Telegraph Operator Lafferty, pose on the depot platform about 1884. Another group decorates narrow gauge diamond-stackers 272,259,275,72 and 37 at the roundhouse.(Junius Young photos, Fred W. Voll collection)

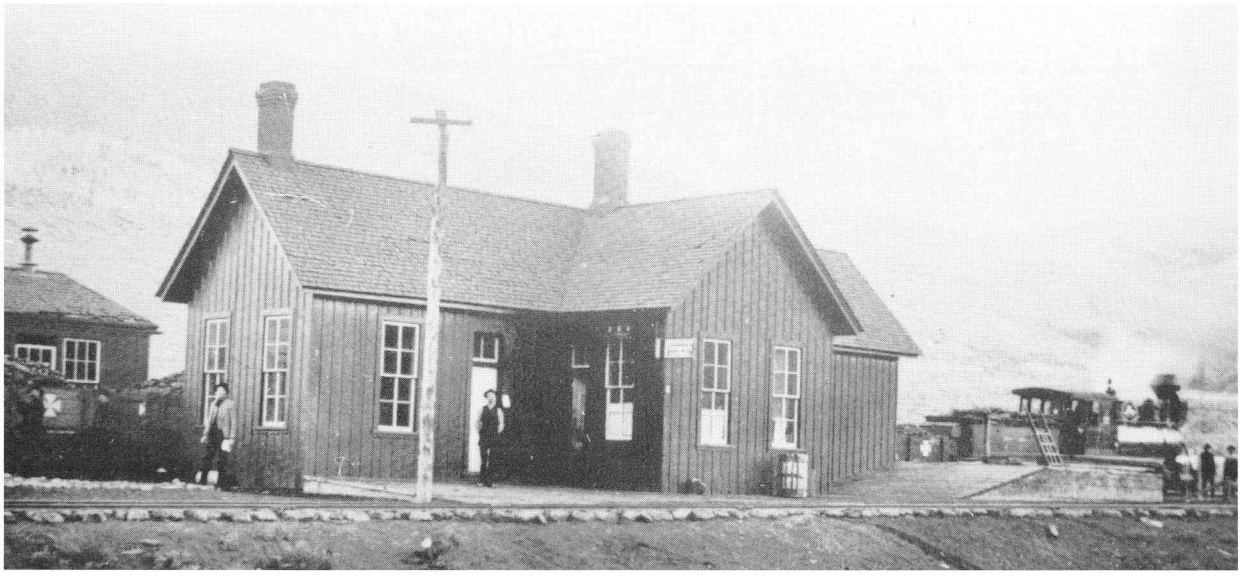


Only a few foundations mark the spot of the town of Pleasant Valley Junction(later, Colton). An eastbound D&RGW piggyback train is running on the westbound main, a feat accomplished safely by having Centralized Traffic Control signalling on the entire mainline between Denver and Ogden. Some outfit cars are spotted in the old Colton yard, October 17, 1983. (J.L. Ozment photo) (below)Shortly after the roundhouse view on the opposite page was taken, Ercanbract and Fireman "Shorty" Moran moved the 272 onto the turntable. Beyond the flatroof coach in the background can be seen four-wheel Denver & Rio Grande caboose 74, identical to No. 49 now restored and exhibited at the Colorado Railroad Museum. (Junius Young photo, Fred W. Voll collection)



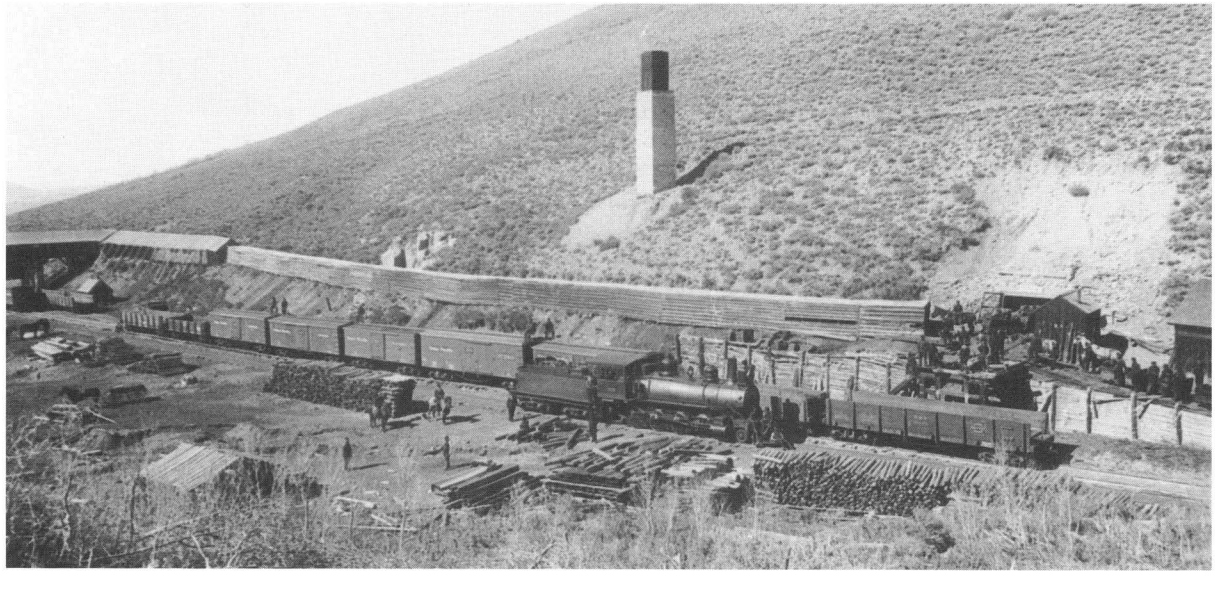
Here is an overall view of lower Scofield in 1900. Workers are preparing to bury many victims of the Winter Quarters mine explosion, Utah's worst mining disaster. A Rio Grande Western standard gauge 2-8-0 simmers in the background.(George Edward Anderson photo, Utah State Historical Society) Below is an early view of Scofield during the narrow gauge days of the D&RGW Ry. about 1888. A 2-8-0 sits on the Winter Quarters main, while the line to the Mud Creek mines leads off to the left. These mines were about two miles above Scofield and were served by the narrow gauge before abandonment and track removal. The grade was later used by the standard gauge construction to Clear Creek in 1900. (Brigham Young University collection)

Loaded coal train 781 passes the town of Scofield on its way from Valcam to the Utah Power & Light Company at Salt Lake City, June 9, 1980. (below) On a calm September morning in 1980 the town of Scofield basks in the autumn sun. This view from cemetery hill is looking toward the valley in which the old coal camp of Winter Quarters was located. The Pleasant Valley branch of the D&RGW is several feet below the main cemetery gate. Many victims of the 1900 mine disaster are buried here. (J.L. Ozment photo)



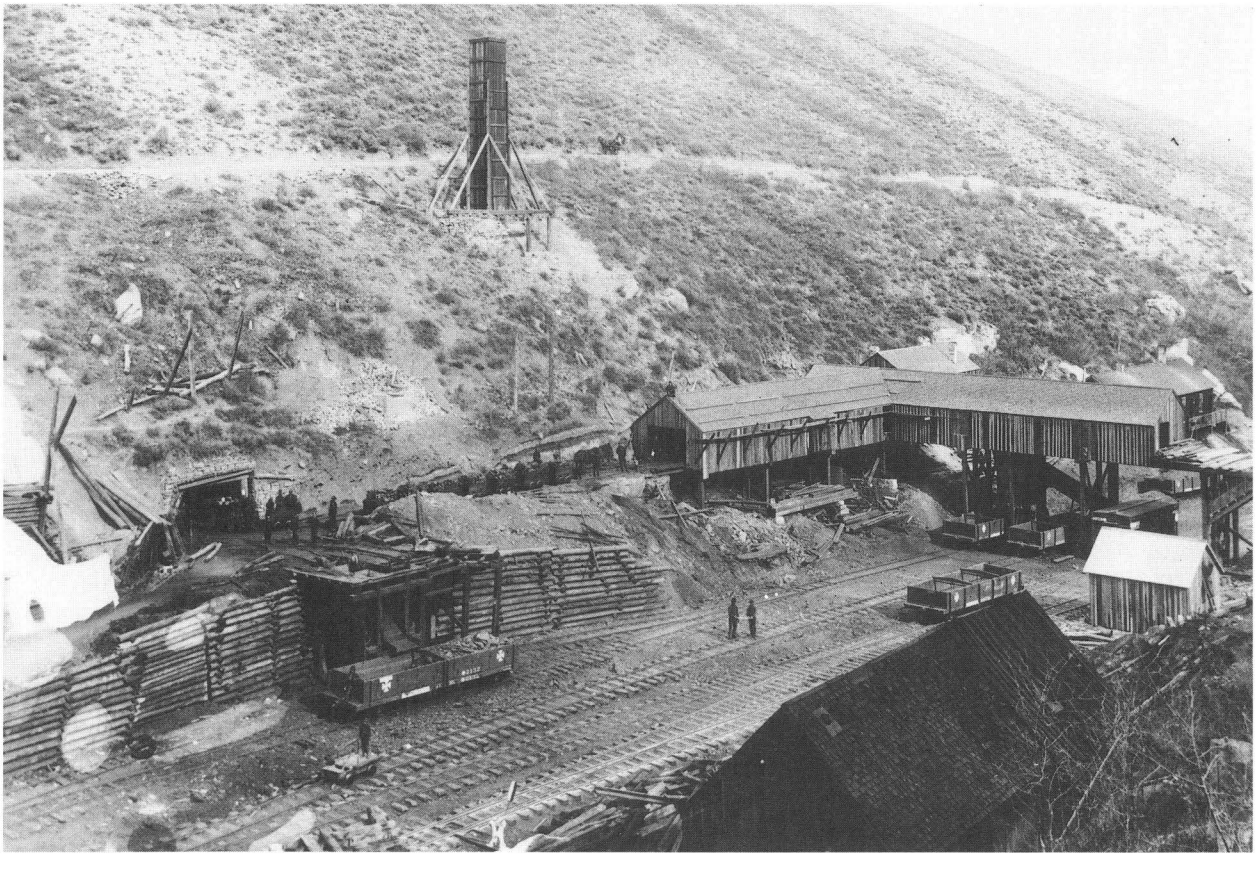
D&RGW Railway locomotive 77 is on the house track at the original Scofield board and batten depot. The maltese crosses on the narrow gauge gondolas indicate that the picture was probably taken in 1889. (Museum collection)

The grisly task of loading bodies from the mine disaster of 1900 had no pleasantries for the workers and onlookers. Rio Grande Western 2-8-0 No. 141 is using a Southern Pacific of Arizona boxcar for this somber duty.(George Edward Anderson, Utah State Historical Society)



A standard gauge Rio Grande Western 2-8-0 is switching the Union Pacific Mine above Scofield in 1900. Coal was loaded both in boxcars and open top hoppers even into the 1960s at some of the Utah mines. (Western Michigan University History collection)

The narrow gauge line of the D&RGW Ry. forms the foreground for this early view of the bunkhouse at Winter Quarters. From the number of well-dressed miners present, we can almost conclusively say that this is a Sunday morning. The view, about 1888, is probably by George E. Anderson. (Brigham Young University collection) (center, right)Here is one of the most mis-identified photos of Utah railroad history, sometimes credited to be the Utah & Pleasant Valley Ry. or the D&RGW Ry. construction over Soldier Summit. This photo is actually of a gang working on the Union Pacific Mine spur during its construction by the D&RGW Ry. in the mid-1880s. The site is today occupied by the abandoned tipple of the Columbine Mine just northwest of Scofield. (below)The mine, tram and coal loading facilities at Winter Quarters were captured on a glass plate negative by pioneer Utah photographer George Edward Anderson about 1889. With the coming of the standard gauge on the Rio Grande Western, the narrow gauge cars shown here were painted with a large, white Maltese Cross to differentiate narrow from standard gauge cars at a glance. (two photos, Utah State Historical Society)



The belt conveyors of the Valley Camp Coal Company form a frame for the three D&RGW units running around their train preparing to load 8400 tons of coal. Long the mainstay of Pleasant Valley, coal is still king there on June 7, 1982. (J.L. Ozment photo)

Geographical Confusion in Utah Railroad Research

During research for this article, considerable geographic confusion was noted in the naming of Utah railroad locations. The beginning of the railroad era in Utah, starting in 1869 and lasting until the 1920s, brought to the state several thousand miles of steam railroad and electric interurban lines. The rapid development of these enterprises, including those portions planned and not constructed, has left a legacy of conflicting and duplicate names. In an effort to clear up some confusion along the line of the Denver & Rio Grande Western Railroad, the following examples are offered as help to the researcher and student of history.

Castle Valley Junction

Three sites have laid claim to this title. The first, between Green River and Price, was named in 1881 during initial survey and construction of the Denver & Rio Grande Western Railway narrow gauge grade between those two settlements. The location was at the junction of an unfurnished graded line, about 23 miles south of Price, on the projected line from Green River via the south side of Cedar Mountain across the Buckhorn Flat toward Salina Pass.

The second location for Castle Valley Junction is the town of Price itself. The initial station of the D&RGW Ry. at this general site was called Castle Valley, the name of which was later changed to Price. A post office was established there on April 7, 1882. There are some references at the time to this location as being Castle Valley Junction.

The third location for Castle Valley Junction was just east of the present town of Hiawatha. The Southern Utah Railway was built in 1910 from Price to Black Hawk (later

renamed Hiawatha) and shortly thereafter another railroad was built from a point just east of Hiawatha to Mohrland. This was called the Castle Valley Railway, and the point of divergence from the Southern Utah line was known as Castle Valley Junction. After the present Utah Railway was constructed in 1913, the Southern Utah and Castle Valley lines were abandoned within a few short years, and the site of the later Castle Valley Junction has disappeared into the sagebrush.

A point could be made for a fourth location for Castle Valley Junction. This would be the location of the wye connection for the present Castle Valley Spur off the Rio Grande main line about halfway between Wellington and Price. Oddly enough, this location is not far from where the original grading south in 1881 left the as-built mainline. The present CV spur owes its location to the realization that a line could be built south along the original unfinished grade.

Clear Creek

There were three locations along the Denver & Rio Grande Western Railway with the name of Clear Creek. The first was along the Utah & Pleasant Valley Railway, predecessor to the D&RGW Ry. at the location of the point of divergence of the D&RGW construction over Soldier Summit at the foot of the four per cent grade on the west side of the pass. The Rio Grande later named this location Tucker. In 1913, Tucker was bypassed by relocation to a two percent alignment up the west side of Solider Summit. The old grade was taken over as a highway and is now a part of U.S. Highway 6. The site of Tucker, located about 1.5 miles west of present Gilluly siding, is a rest stop for motorists at the triple junction of Soldier Creek, Starvation Creek (early name) and Clear Creek.

The second Clear Creek was the name given the Pleasant Valley Branch extension south from Scofield, Utah, finished in 1899. This particular stream had been earlier known as Mud Creek. In fact, a short two-mile narrow gauge spur once went to the Mud Creek Mines just above Scofield. After a few years of operation in the 1880s, service ceased when the mines closed and the track was removed. When Utah Fuel Company influence caused the Rio Grande to rebuild on up the drainage in 1900 it evidently was thought Clear Creek had a better sounding name than Mud Creek.

The third location for Clear Creek was on the projection by the D&RGW Ry. line south from Salina to the present site of Sevier, Utah, thence over Clear Creek summit to the west. This stream was one of many in the west named Clear Creek. Some grading was done in the narrows of Clear Creek but no track construction west of Sevier was ever completed. In fact, the railroad was not built between Salina and the mouth of Sevier Canyon (the confluence of Clear Creek) until 1896.

Cottonwood (Wash/Hill)

West of Green River there exists a Cottonwood Wash, located between the present Denver & Rio Grande Western and the San Rafel *(a present variant of San Rafael)* River. The original construction of the southern alignment for the D&RGW Ry. used this wash, as well Saleratus and Tidwell draws, to gain access to the divide at the east end of Cedar Mountain. This was on the line that was graded, but that had no track ever laid on it, between Green River and Castle Valley Junction.

Between Cisco and Westwater on the standard gauge line of the Rio Grande mainline constructed in 1889 lies a divide known as Cottonwood Hill. A siding with the name of Cottonwood was constructed at the top of the hill. The siding and the original standard gauge line were relocated in 1961, eliminating a number of curves and lowering the crossing of Cottonwood hill about ten feet. This Cottonwood is not related to the Cottonwood Wash area described in the previous paragraph. They are about 75 miles apart.

Saleratus

In the vicinity of Green River there are apparently two Saleratus washes. One is east of Green River near Solitude siding. The original narrow gauge D&RGW line was built east down Saleratus Wash, over to the later site of Elgin, then across the river to Green River (earlier named Blake). A Saleratus siding existed on the narrow gauge line. The 1889 standard gauge line bypassed this draw and was located several hundred yards to the south.

West of Green River, the main drainage from the southwest which passes along the south side of the Denver & Rio Grande Western Railroad is also known as Saleratus Wash. This is a much larger drainage than the one on the other side of Green River. The early construction of the Cedar Mountain unfinished grade toward Castle Valley Junction was built up Saleratus Wash west of Green River, later crossing into Cottonwood and Tidwell draws on its climb toward Cedar Mountain summit. The line upon which track was actually laid follows the present railroad alignment closer to the Book Cliffs. The two Saleratus washes cause some confusion in researching early records, but it must be kept in mind that these are not the same, being located on separate sides of the Green River near the town of that name.

The Sequel

Today as Amtrak No. 5, the *California Zephyr*, hurries across the desert country west of Green River, passengers reclining in the air conditioned comfort of Superliner cars can view the vast expanse of the Book Cliffs on the right and the San Rafael Swell/Cedar Mountain country on the left. Scarcely visible are faint traces of the early narrow gauge grade construction in the areas mention above. The present CV spur near Wellington is the only link to the once vast grade construction of the line south from Price to Castle Valley Junction and around Cedar Mountain and down to Green River. The passenger of today might notice a weed-grown grade bending off to the left just west of Woodside and a few ancient timber bridge pilings in a draw as they drop off Cedar Hill into Grassy Trail Wash, the last visible vestige of the original narrow gauge line visible from today's alignment. But down along the Price River between Woodside and Cedar is weathering grade and a 90-foot tunnel which for a brief time between 1883 and 1890 was part of the mainline of the Denver & Rio Grande between Denver and Ogden. Out along the south side of Cedar Mountain, miles from any railroad, lies the unfinished 77-mile line graded but never ironed, basking in the sun to excite the interest of the occasional passing visitor in this barren, inhospitable land.

About 1925 D&RGW photographer George L. Beam photographed Bridge 595B, renewed as a part of a massive improvement program then under way. In the distance, just above the bridge, the old narrow gauge grade (1883-1890) can be seen coming up out of Grassy Trail Creek to join the present line at the curve in the distance. The location is 40 miles west of Green River.

The late afternoon sun of October 2, 1978 highlights the present standard gauge alignment west of Woodside. Near the signal case at center, the original narrow gauge veered left, barely seen in the photograph, and followed the Price River upstream to a junction of Grassy Trail Creek, thence up to near the old siding of Verde. The present alignment was constructed in 1890 to eliminate the severe flooding problems along the original route. (J.L. Ozment photo) The poem is from an 1895 Rio Grande Western promotional booklet titled Utah. *(Museum collection)*

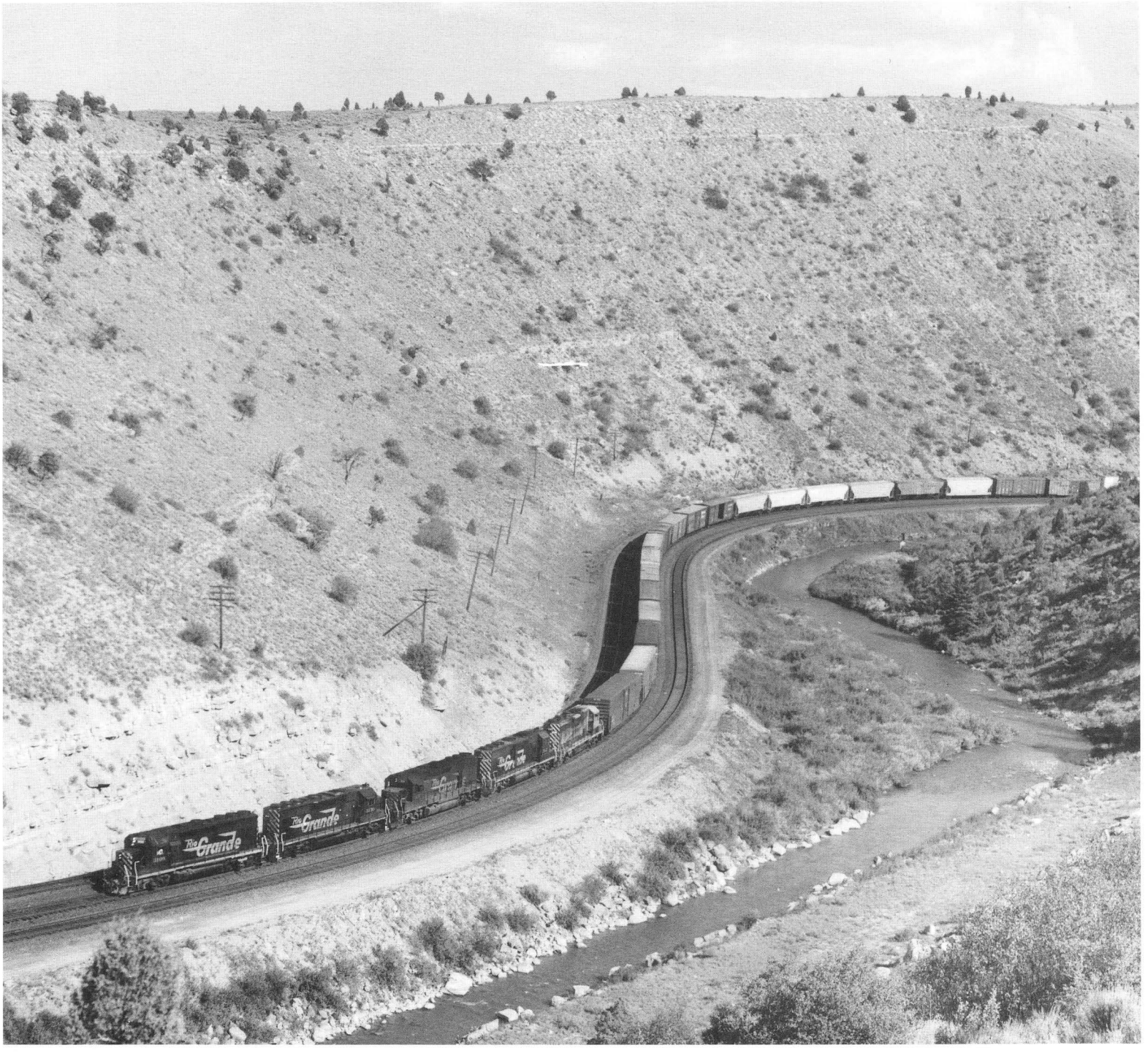
UTAH'S GREAT RAILWAY.

THE GRAND HIGHWAY OF TRAVEL.

From Mountain to Meadow.

When God had reared the rugged walls
'Round Utah's verdi vales;
Then man came on his mission and
He laid two shining rails.
O'er which, in perfect palace cars,
Humanity is whirled
At sixty miles an hour through
This wonder of the world.

From frozen frigid mountains with
Their polished peaks of snow,
To fields of waving golden grain and
Meadowlands, below.
Through gardens in whose presence even
Paradise would pale,
At sixty miles an hour we
Are whirled along the rail.



Where Frank Hodgman had camped beside the Price River over a century before, five black and "Grande gold" diesel units, the horsepower and tonnage rating of which he could not have envisioned, reverberate against the canyon walls as they ascend the east slope of Soldier Summit near Kyune, August 30, 1988. (David Berret photo, Viktor Laszlo collection)

Unseen by travelers speeding along nearby Interstate 70 or on Amtrak's California Zephyr, *a long line of hand-hewn narrow gauge pole ties laid down in the winter of 1883, some still with spikes and 30-pound rail braces, marches to the horizon across an eastern Utah desert landscape that still would be recognized by Hodgman and his colleagues from that long-ago surveying party (Robert W. Richardson photo)*