

COLORADO MIDLAND RAILWAY

- Building the Line 1883-1890
- The Santa Fe Years 1890-1897
- Independent Again 1897-1900
- The Rio Grande Era 1900-1912
- The Final Years 1912-1921

BUILDING THE LINE 1883-1890

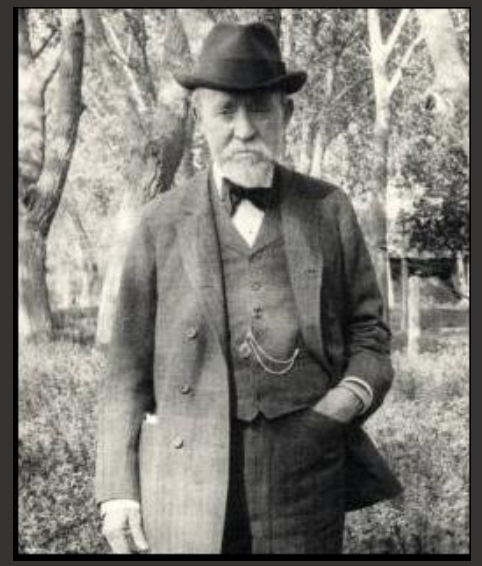
- Homer Fisher, Henry Rogers & Thomas Wigglesworth 1883
- James. J. Hagerman 1886

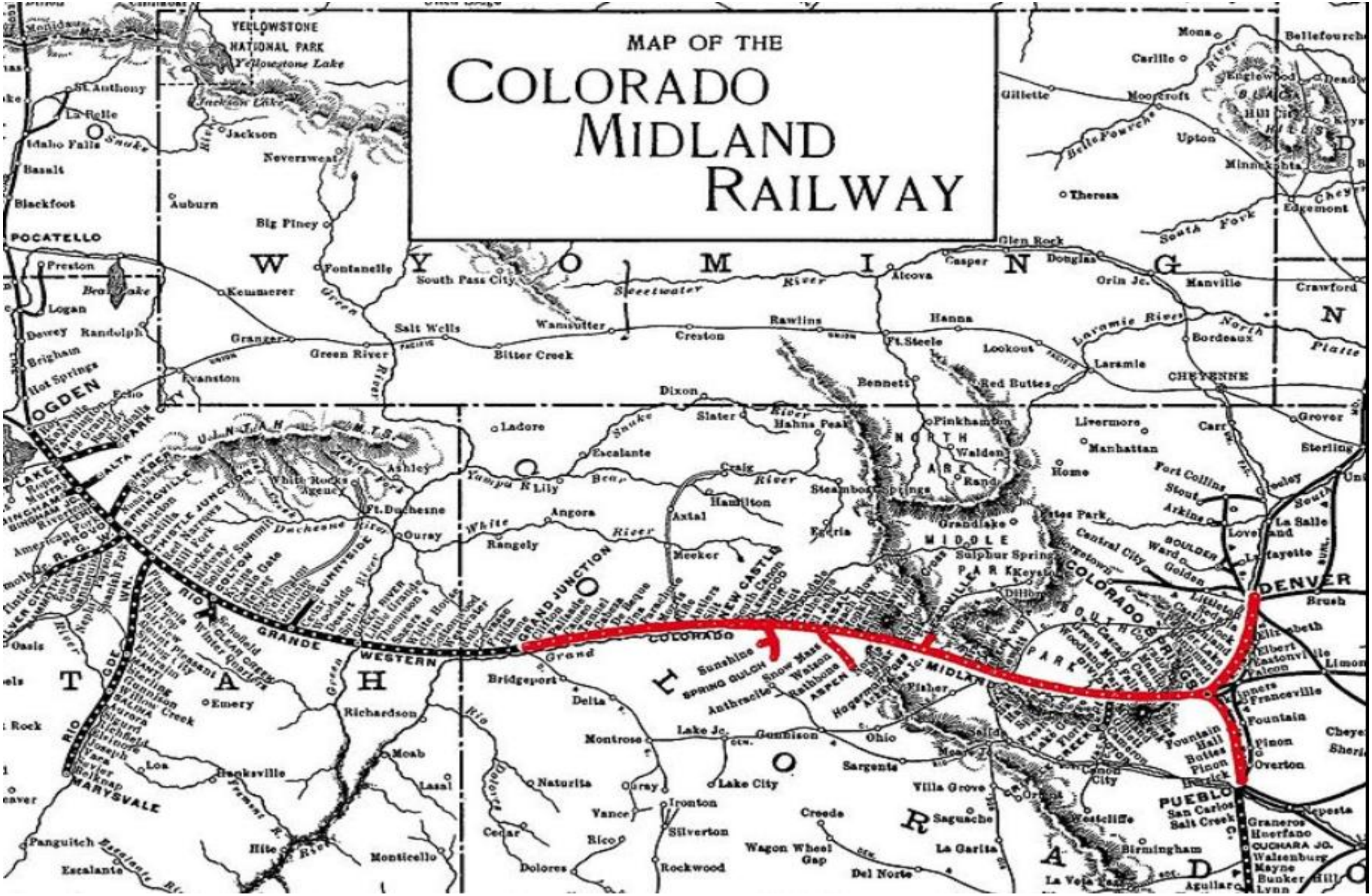
New York banker & industrialist

Tuberculosis

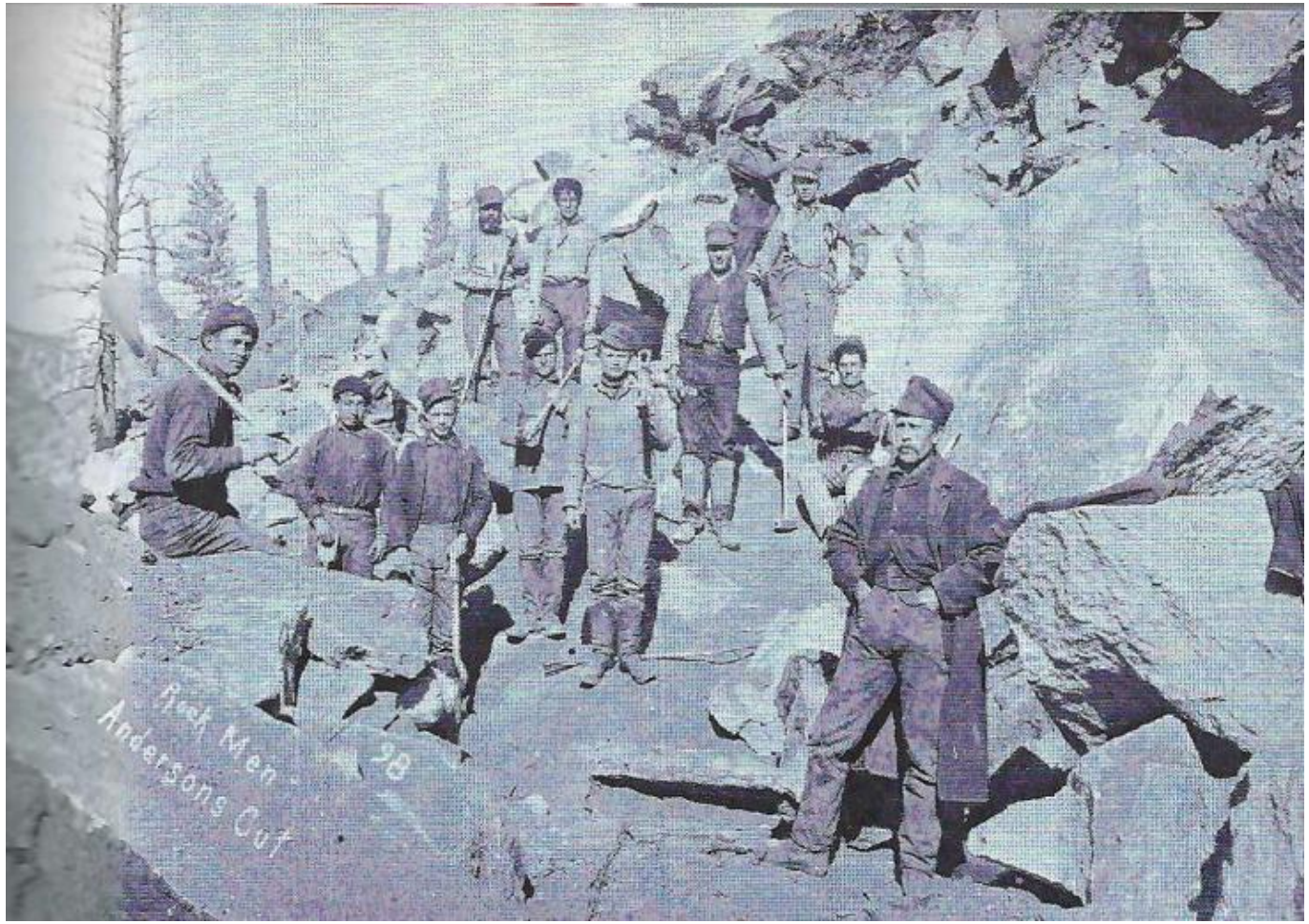
Silver mining

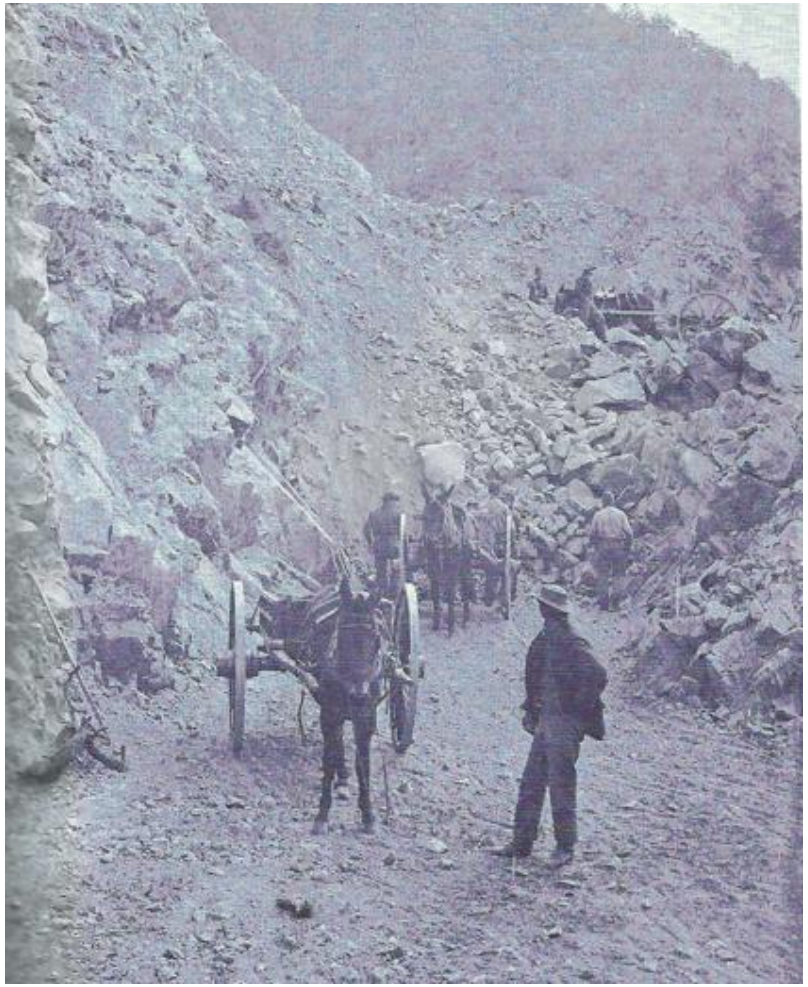




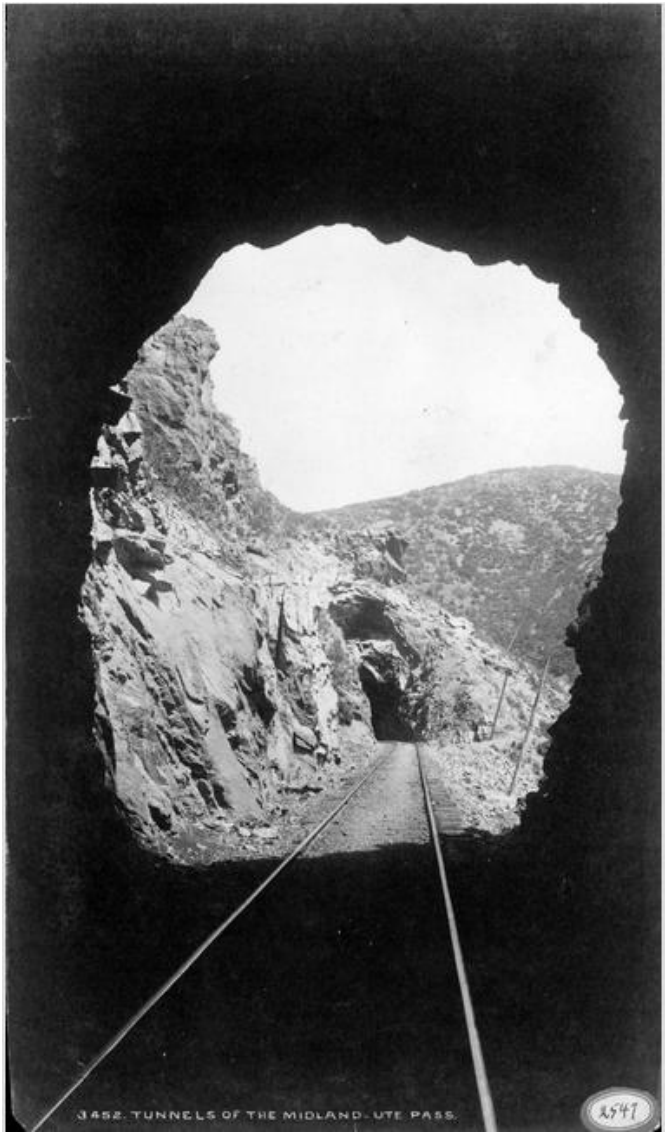

MAP OF THE
COLORADO
MIDLAND
RAILWAY
YELLOWSTONE
NATIONAL PARK
Yellowstone Lake
Jackson Lake
Jackson
Neversweat
St. Anthony
La Belle
Idaho Falls
Basalt
Blackfoot
Auburn
Big Piney
POCATELLO
Preston
Bear Lake
Logan
Dewey
Randolph
Brigham
Hot Springs
OGDEN
Evanston
Kemmerer
Fontanelle
Granger
Green River
Salt Wells
Bitter Creek
South Pass City
Wamsutter
Creston
Rawlins
Sweetwater River
Alcova
Casper
Glen Rock
Douglas
Orin Jc.
Manville
Crawford
Hanna
Ft. Steele
Lookout
Laramie
Bordeaux
Laramie River
North Platte
CHEYENNE
Bennett
Red Buttes
Dixon
Slater
Hahns Peak
Ladore
Escalante
Yampa R
Lily
Craig
Steamboat Springs
Hamilton
Axtal
Meeker
Rangely
White River
Ouray
Ft. Duchesne
White Rocks Agency
Ashley
Duchesne River
Snake River
Pinkhamton
Walden
Grandlake
Livermore
Manhattan
Home
Fort Collins
Stout
Arkins
Carr
Grover
Sterling
Greeley
La Salle
Loveland
Lafayette
Central City
Golden
Ward
Boulder
Estes Park
Sulphur Springs
Keystone
Dillon
Frisco
Breckenridge
Fairplay
Leadville
Buena Vista
Granite
Twin Lakes
Independence
Aspen
Sunshine
Spring Gulch
Snow Mass
Watson
Rathbone
Anthracite
Hagerman Pass
Fisher
Gunnison
Montrose
Lake Jc.
Ohio
Sargents
Villa Grove
Orient
Canon City
Westcliffe
Salida
Parkdale
Texas Creek
Florence
Pueblo
San Carlos
Salt Creek
Graneros
Huerfano
CUCHARA JC.
Walsenburg
Mayne
Bunker Hill
Lynn
Aguilar
Birmingham
La Veta
Del Norte
La Garita
Saguache
Creede
Wagon Wheel Gap
Lake City
Ironton
Silverton
Rockwood
Rico
Vance
Naturita
Ouray
Cedar
Dolores
Monticello
Hite
Escalante
Panguitch
Marysvale
Richfield
Sigurd
Salina
Gunnison
Aurora
Fairview
Mt. Pleasant
Spring City
Ephraim
Manti
Sterling
Gunnison
Willow Creek
Los
Fremont R.
Fremont
Loa
Rocksville
Emery
Richardson
Moab
Lasal
Delta
Bridgeport
Grand Junction
Palisade
Clifton
Fruita
Rhone
Loma
Mack
Gateway
Colorado River
Green River
Thompson's
Cisco
Crescent Junction
Green River
Utah
Colorado
Grand River
Book Cliffs
Castle Gate
Helper
Price
Wellington
Sunnyside
Cedar
Woodside
Desert
Spring
Green River
Little Grande
Thompson's
Sagers
White Horse
Cisco
Westwater
Colorado
Grand

COLORADO CITY MANITOU UTE PASS





ROCK TUNNELS & GRADES

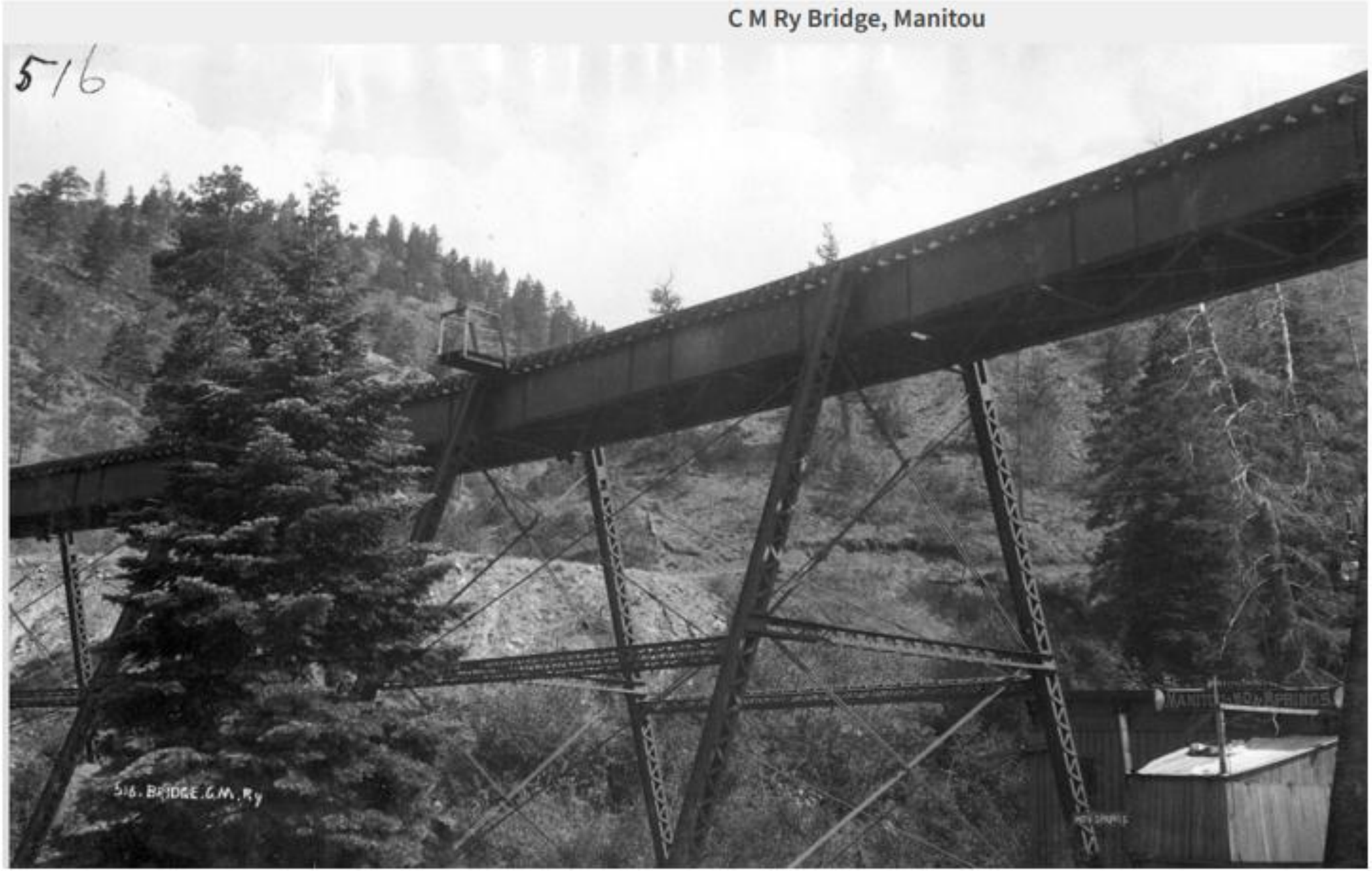




Hanging Rock cut. Ute Pass Col. Midland R.R.



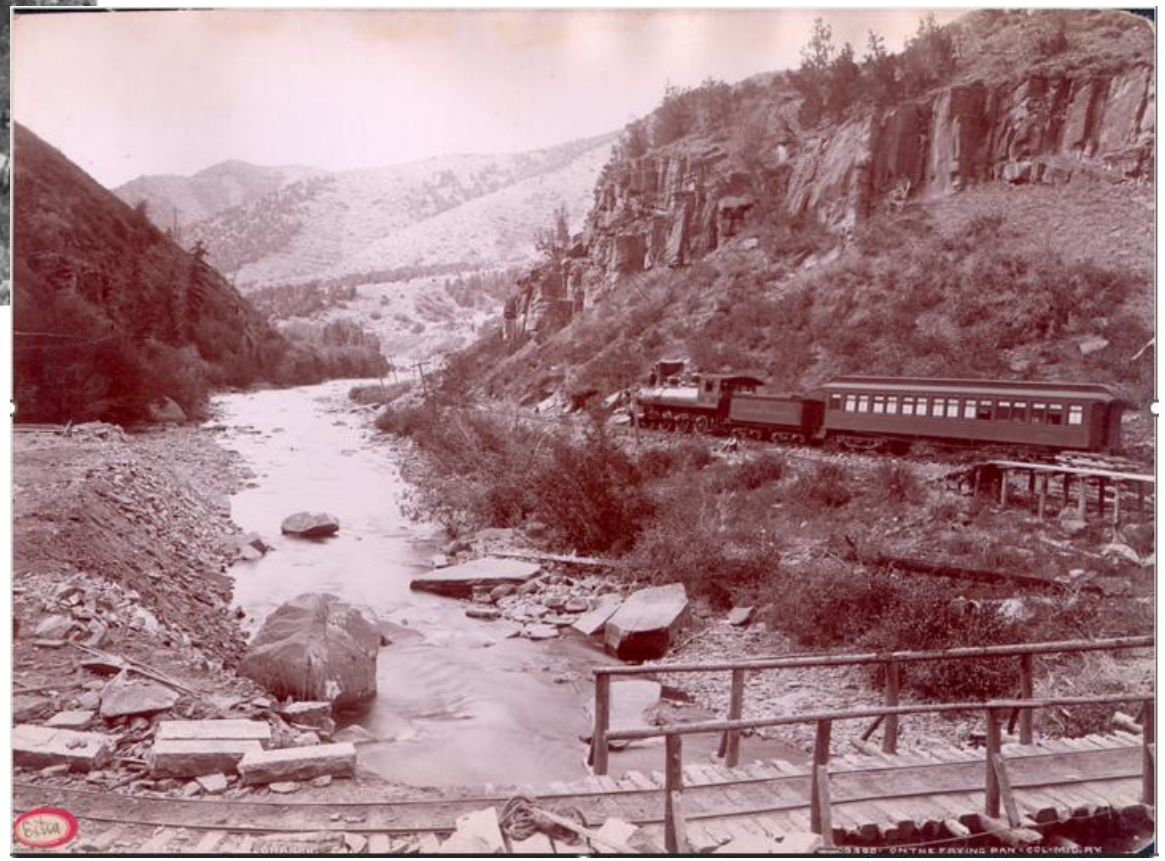
C M Ry Bridge, Manitou





Granite Canon

On the Frying Pan

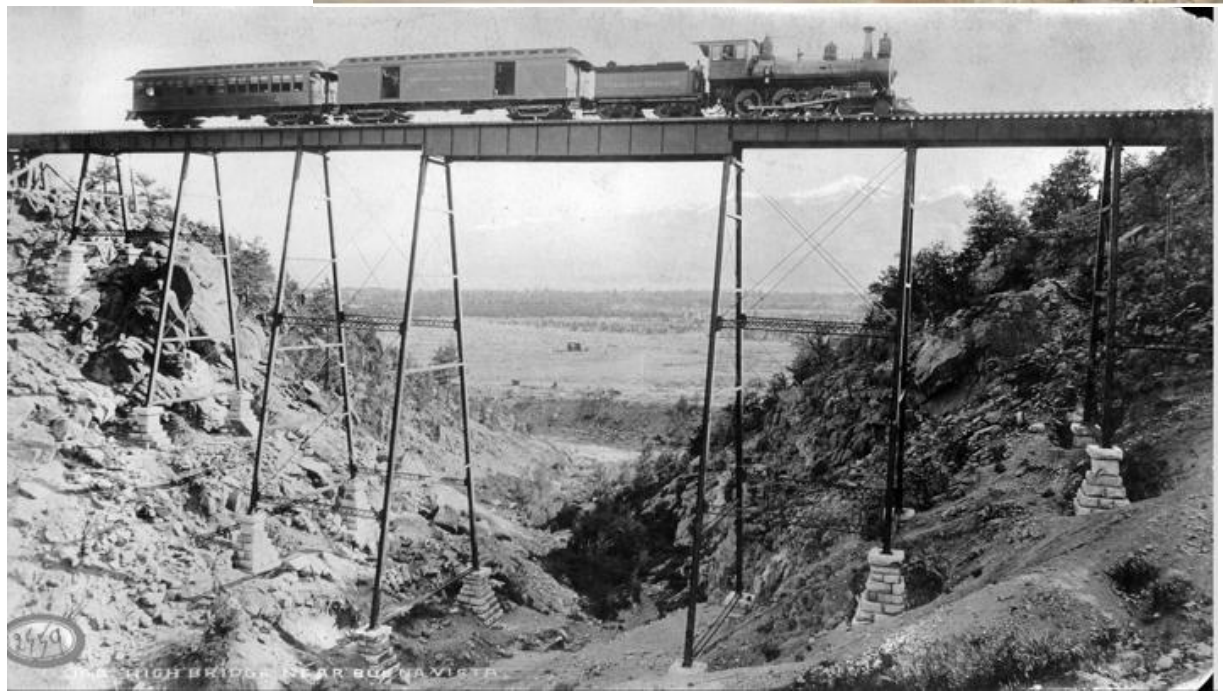


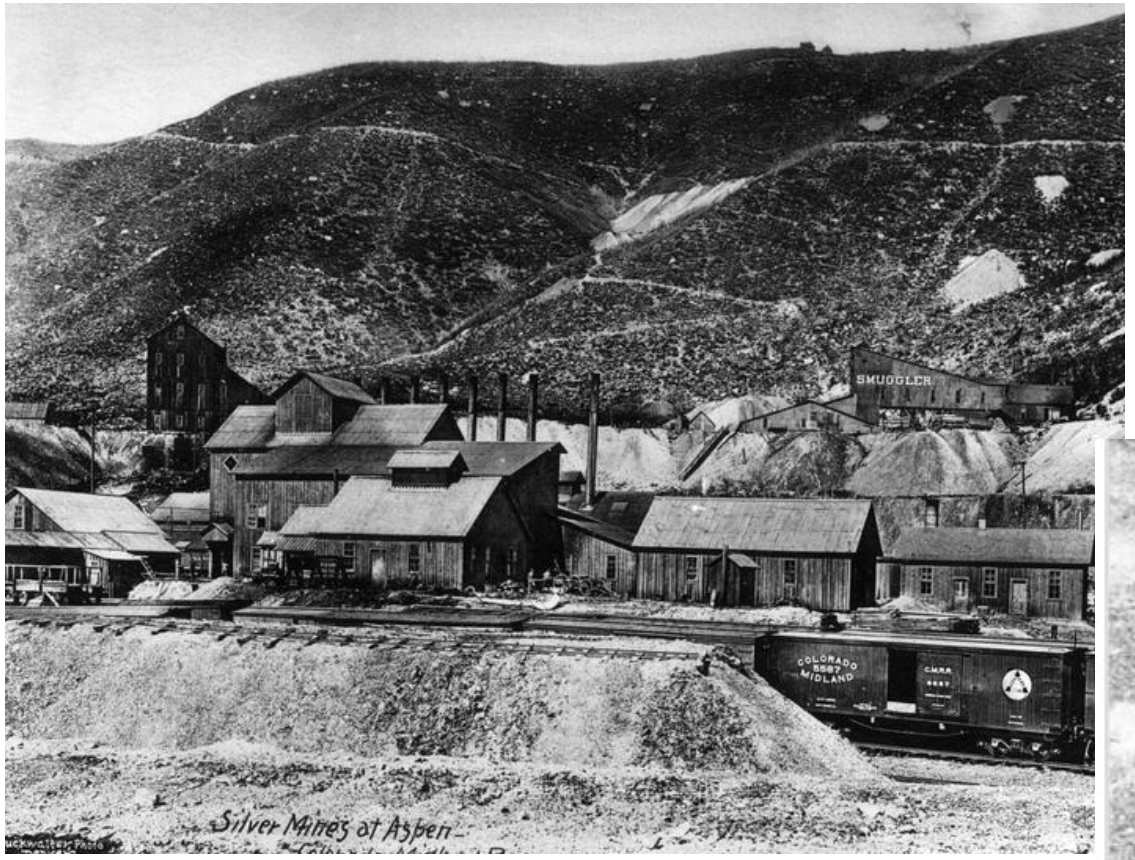
Tunnel 5 11 Mile Canon





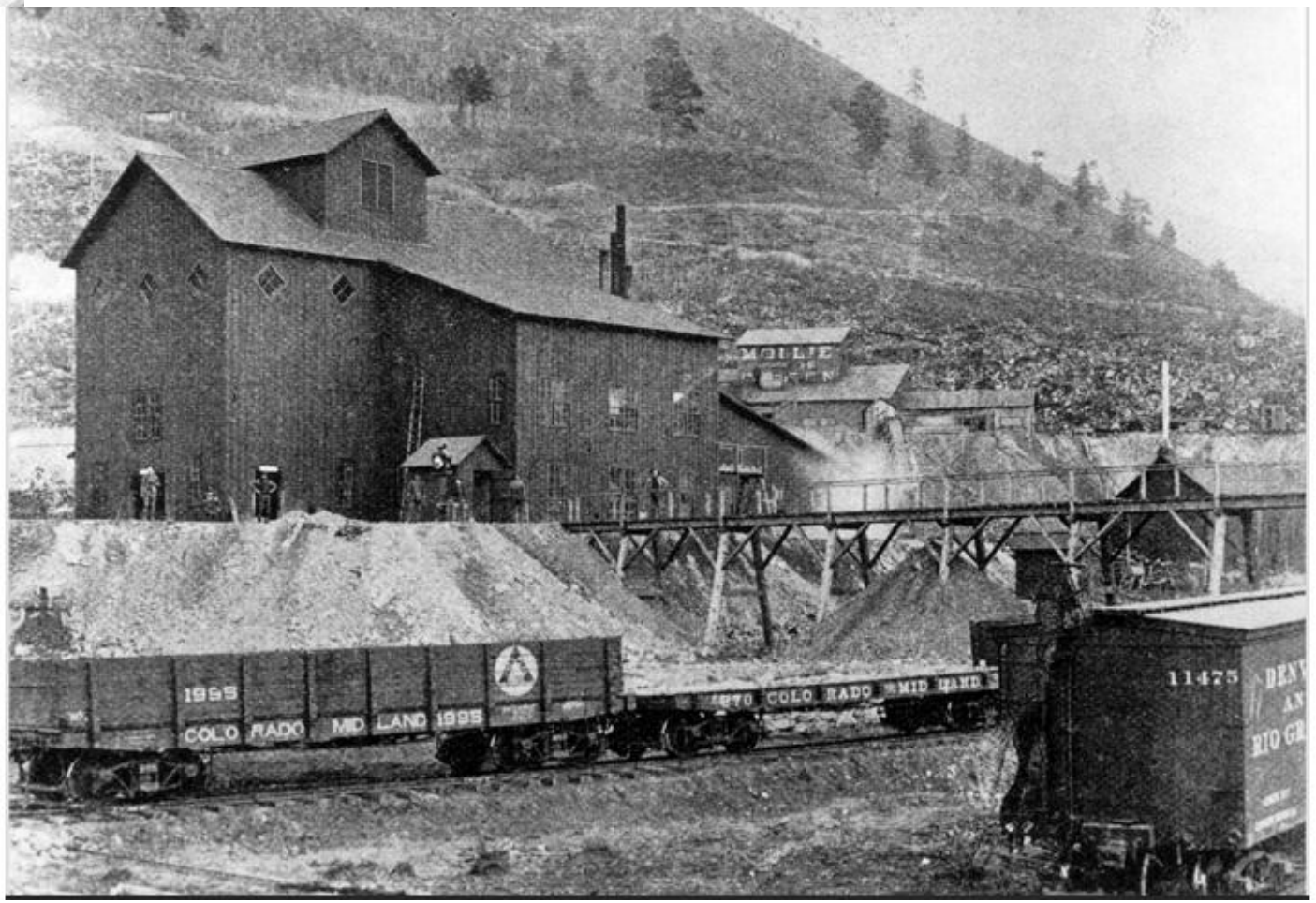
High Bridge
Buena Vista





Silver Mines-Aspen

Mollie Gibson Mine



LOCOMOTIVES



Class 104 4-6-0 #20
Schenectady Works

1886-1887
Class 115, 102 2-8-0's



LOCOMOTIVES



1887



Class 93 4-6-0 #25

Schenectady Works



1888

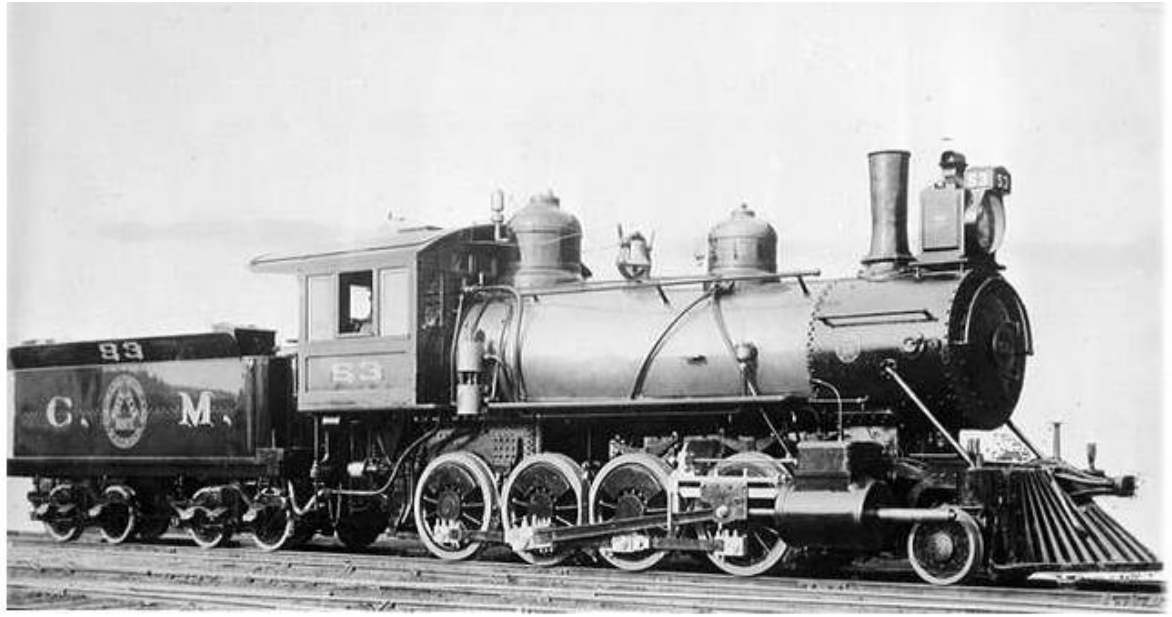


Class 102 4-6-0 #38
Baldwin Locomotive Works



1889

Class 102 4-6-0 #41
Schenectady Works



Class 136 2-8-0 #51 & 53
Baldwin Locomotive Works
1897





EARLIER LOCOMOTIVES TRACTIVE EFFORTS AND CARS PULLED ON GRADE

Engine	Tractive Effort	34’ Cars on 3%
Class 104 (4-6-0) 60” Drivers	21,200	4.1 cars
Class 102 (4-6-0) 52” Drivers	24,500	4.9 cars
Class 115 (2-8-0) 52” Drivers	27,200	5.6 cars
Class 136 (2-8-0) 52” Drivers	33,700	6.9 cars



HAGERMAN TUNNEL



- "High Line"
- Construction: 1886-1887
- 2,060 ft long
- Elevation 11,530 ft
- 16 degree turns
- 4% grades
- Snowsheds
- "Baton" signaling

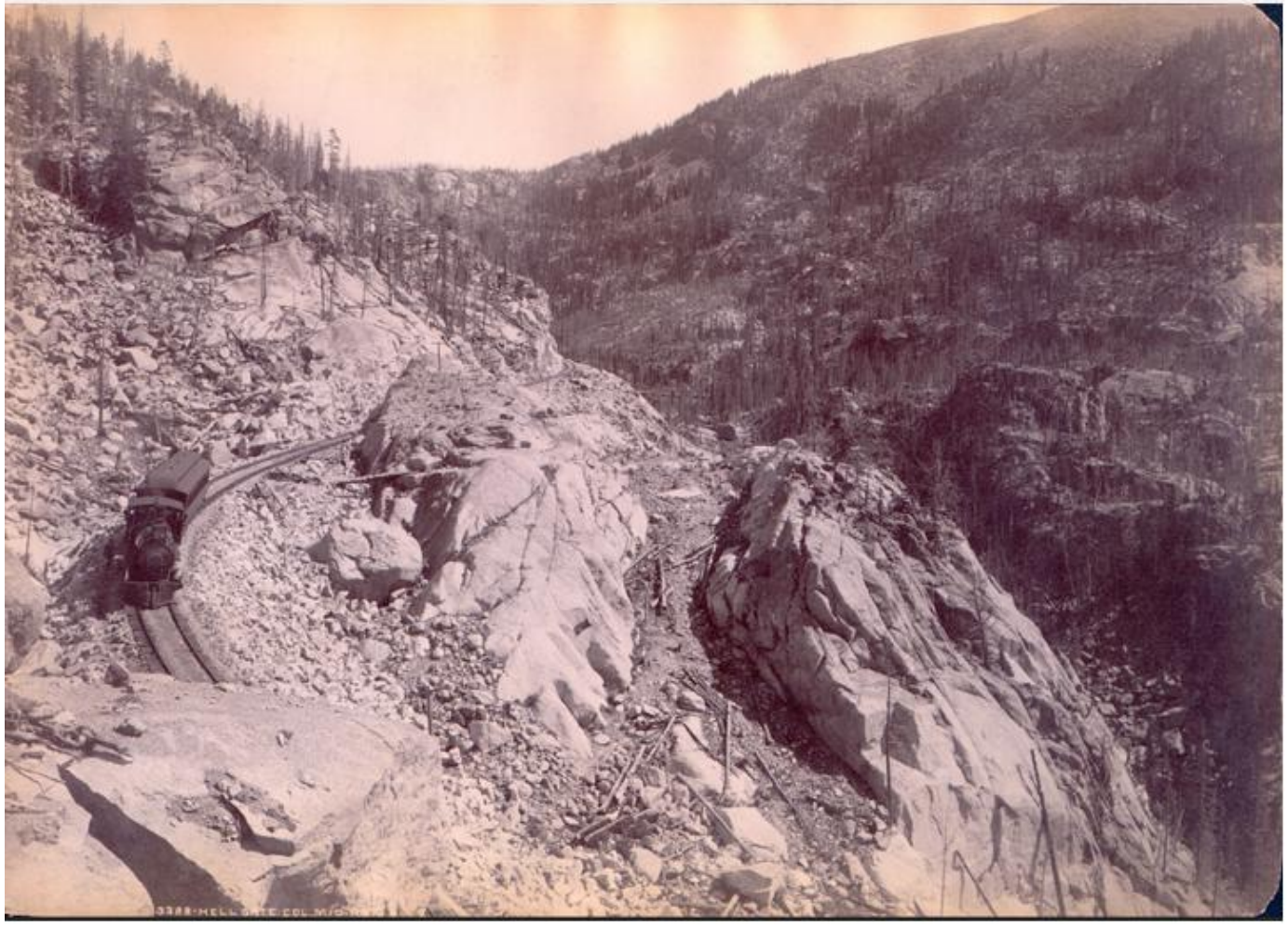

01217 THE LOOP - NEAR HAGERMAN TUNNEL.



Hagerman Pass, 11,500 ft. above the sea, Colorado Midland Ry



Hell Gate Col Mid Ry



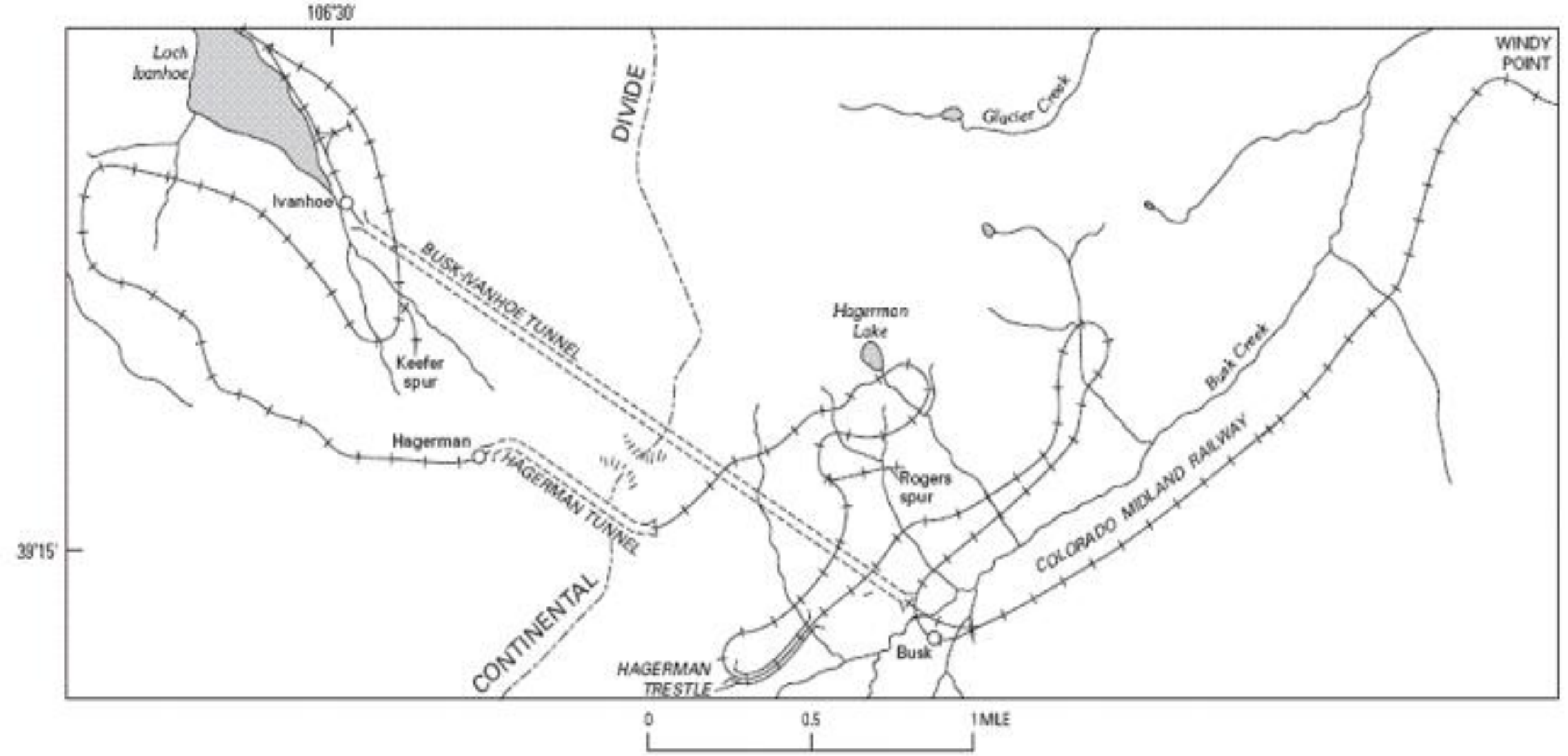
HELL GATE



THE SANTA FE YEARS 1890-1897

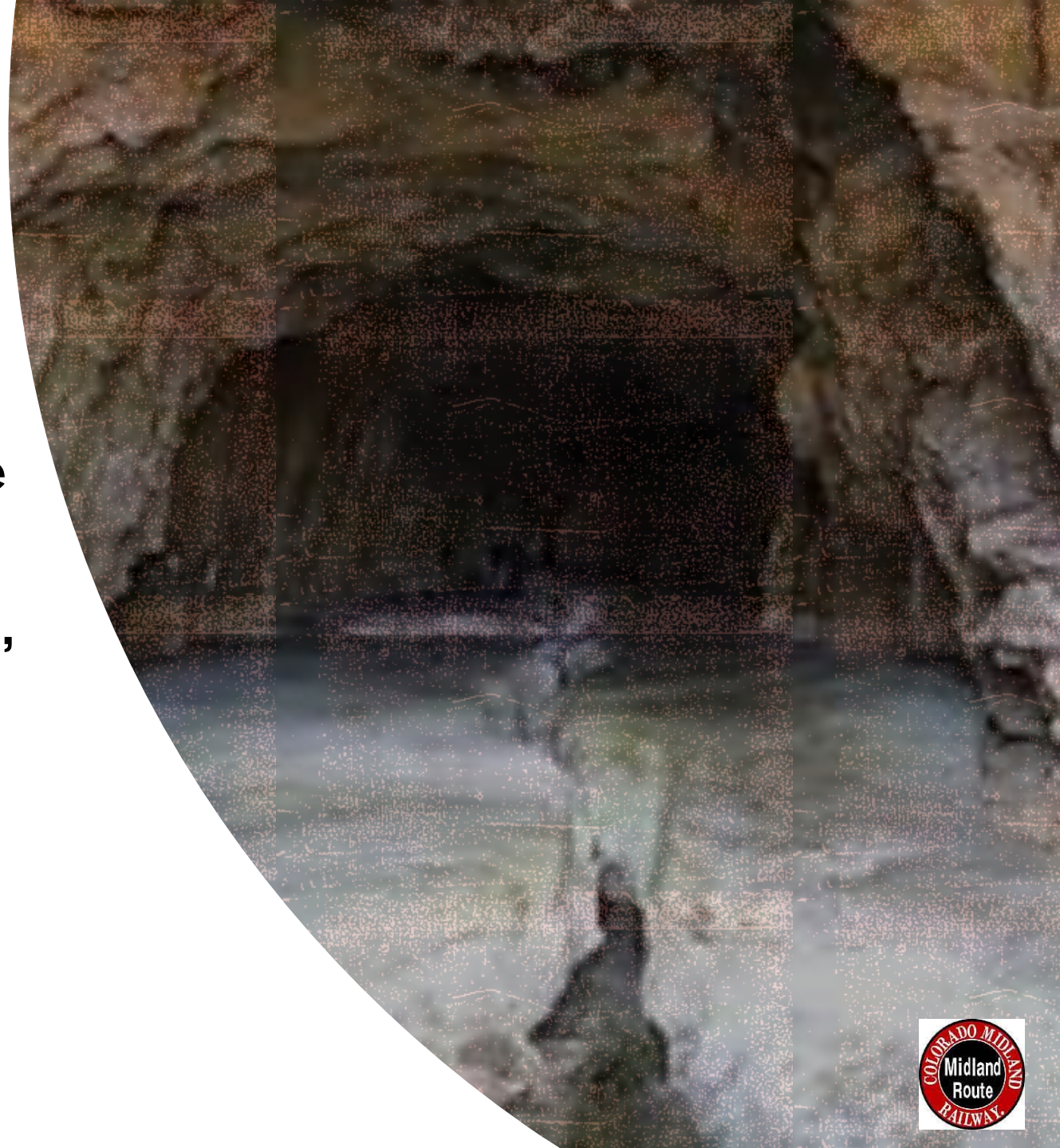
- Santa Fe purchases the CM
- Separate Busk Tunnel Railroad Company created
- Busk-Ivanhoe "A Graveyard Tunnel" 1891

  3 years to complete
- 9,400 ft long. 20 deaths: rock falls, dynamite explosions
- CM retains the Hagerman tunnel, trackage, snowsheds on the "High-Line"


106°30'
39°15'
Loch Ivanhoe
Ivanhoe
DIVIDE
Glacier Creek
WINDY POINT
BUSK-IVANHOE TUNNEL
Keefer spur
Hagerman
HAGERMAN TUNNEL
Hagerman Lake
Rogers spur
Busk Creek
COLORADO MIDLAND RAILWAY
CONTINENTAL
HAGERMAN TRESTLE
Busk
0
0.5
1 MILE

INDEPENDENT AGAIN 1897-1900

- 1893-1897 trains ran through the Busk-Ivanhoe tunnel.
- Rail traffic extends through Rifle, Glenwood Springs, Cardiff and Grand Junction
- Fight on the rental agreement between CM and Busk Tunnel
- 1897 Hagerman Tunnel "High Line" back into use





DISASTER WINTER SNOW JANUARY 1899

- Blockage lasted 78 days. January 27-April 14
- Stalled freight and passengers
- Frozen cattle
- Rotaries and locomotives

BUSINESS EXPANDS

- 1899: Busk-Ivanhoe Tunnel purchased by CM

  Opens again. CM trains run thru until October 1921
- Hagerman tunnel and loops dismantled
- Ranching, mining, agriculture, lumber, passengers
- 1900: New owners 50:50 partnership

  Colorado & Southern C&S-Rio Grande Western RGW

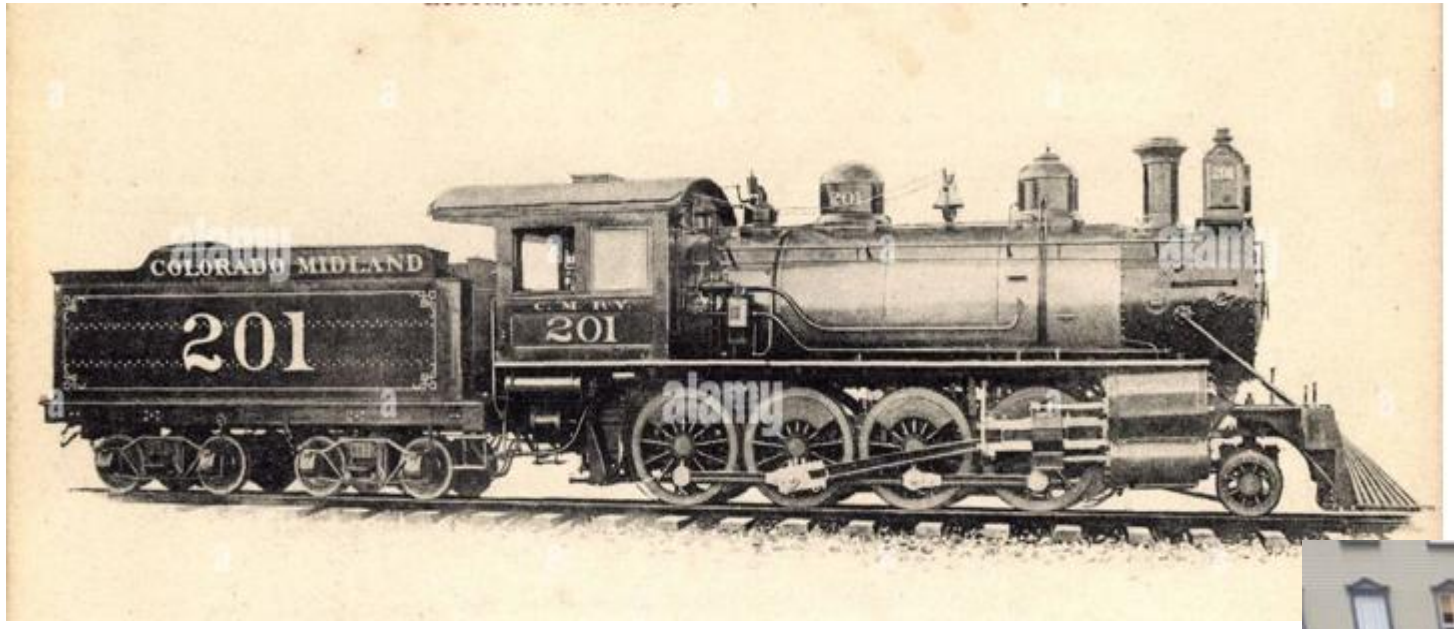
THE RIO GRANDE ERA - 1900-1912



- 1901: Denver & Rio Grande (D&RG) buys RGW

  D&RG competitor to the

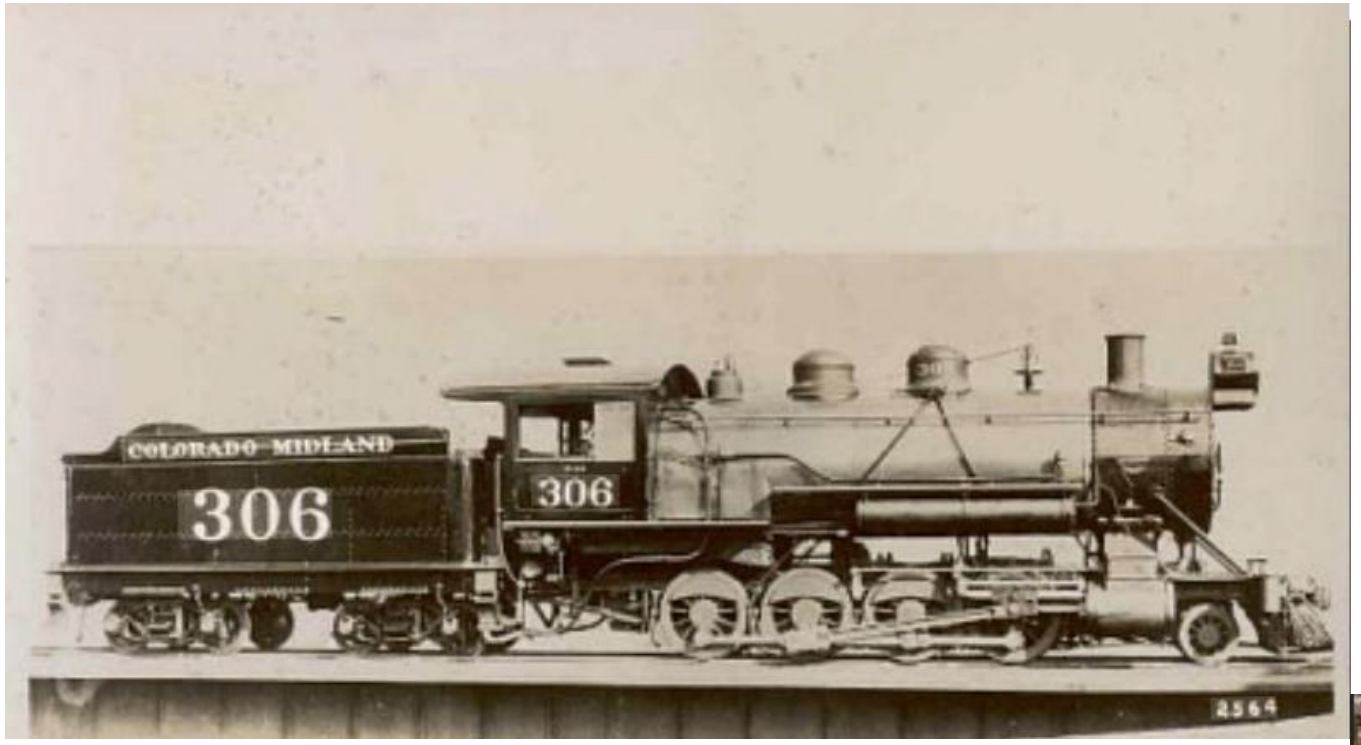
  Midland now owns 50% CM
- New locomotives
- Modern roadbed improvements
- Link & pin couplers replaced
- Improved communications – Telegraphone



1897

Class 159 2-8-0 (#200's)
Baldwin Locomotive Works





1907



Class 175 2-8-0 (#300's)
Baldwin Locomotive Works

THE RIO GRANDE ERA - 1900-1912

- CM traffic supports western slope business









Midland Route
COLORADO MIDLAND RAILWAY

THE RIO GRANDE ERA 1900-1912

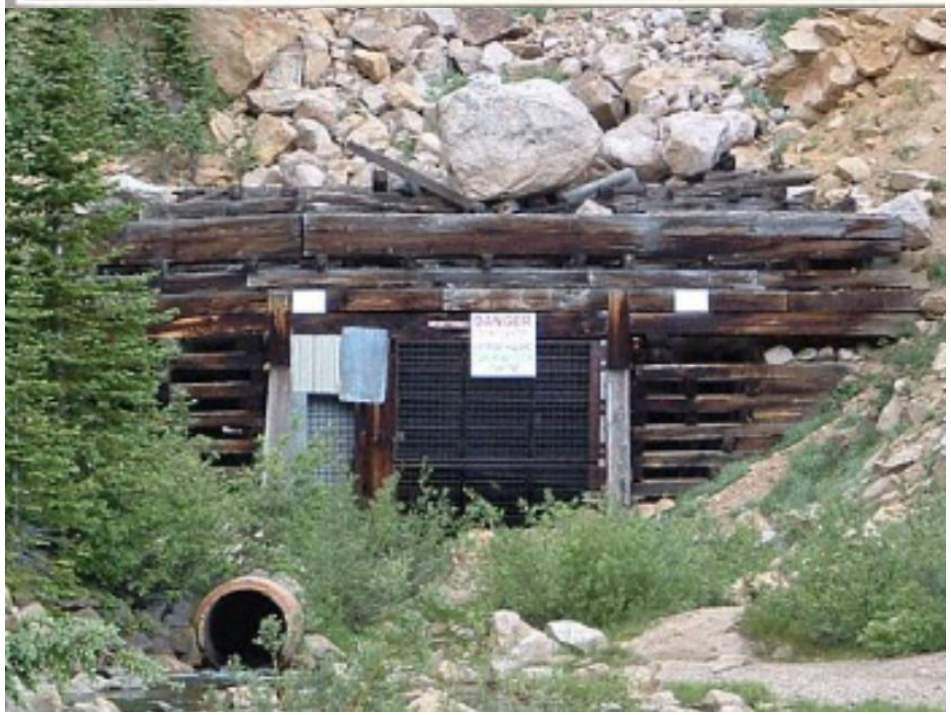
- 1908: D&RG completes their system
- 1908: Chicago Burlington &Quincy buys C&S, therefore half owner of CM
- Midland starts losing traffic business
- 1911: Lost Cripple Creek ore business
- 1912: CB&Q/C&S sell their share of the CM
- 1915-1916: Reorganization by owners fails

THE FINAL YEARS 1917-1921

- May 1917: CM auctioned off Albert E. Carlton
- Attempts to coordinate with Cripple Creek Central
- December 1917: WWI
- 1918 U.S.R.A proclamation to shutdown CM
- CM track from CO Springs-Divide sold to MT
- 1921 Destruction

- Midland Terminal Railroad shutdown - 1949



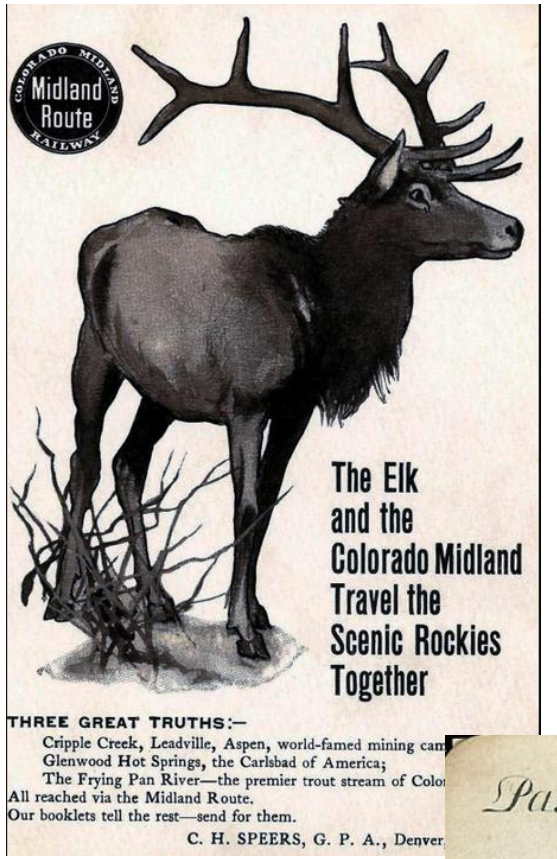


THE FINAL YEARS 1917-1921

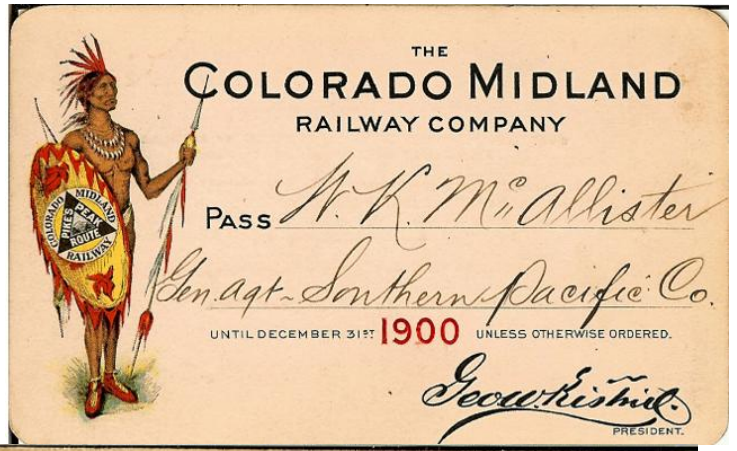
- Busk-Ivanhoe Tunnel becomes the Carlton Tunnel
- Water storage & flume

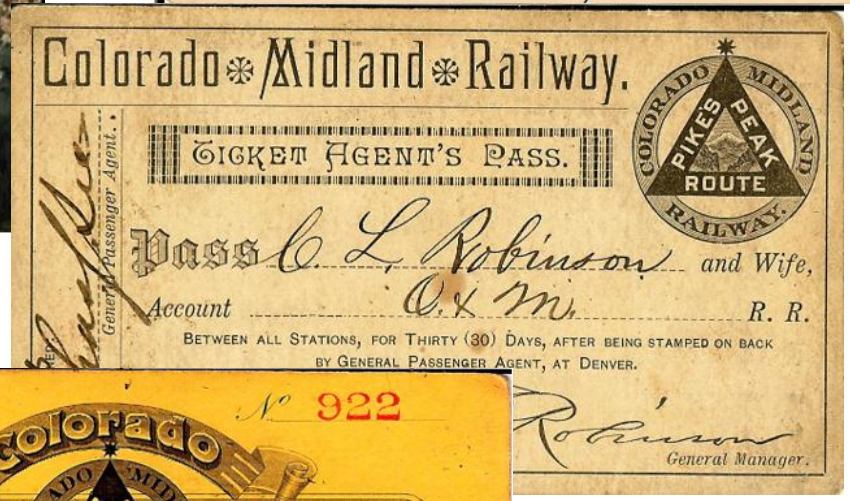
  West to East
- Automobile traffic ends in 1945 after cave-in

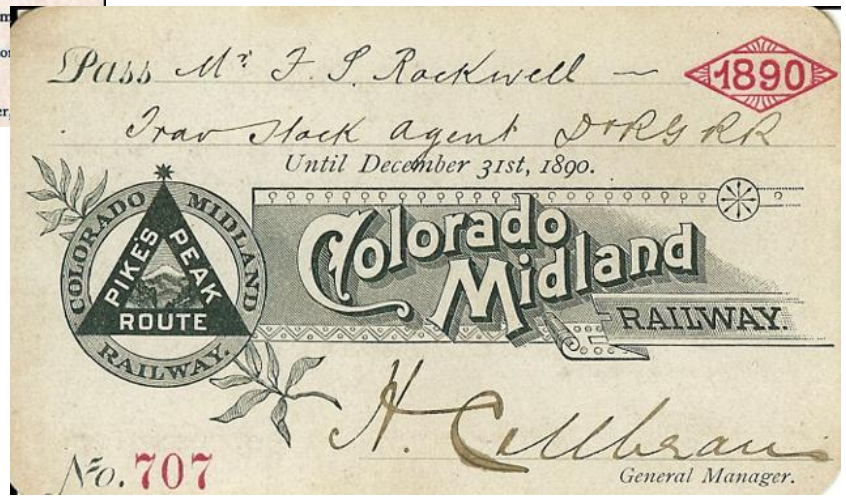
COLORADO MIDLAND RAILWAY

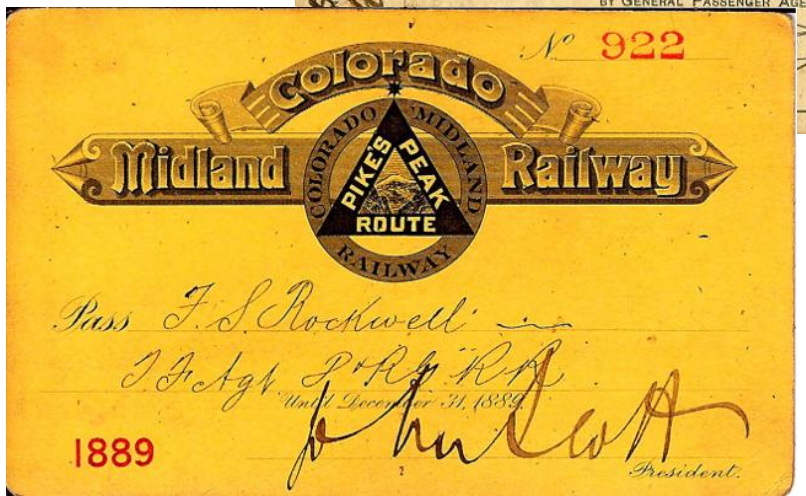














OPERATIONS

1895-1901 Colorado Midland Railway

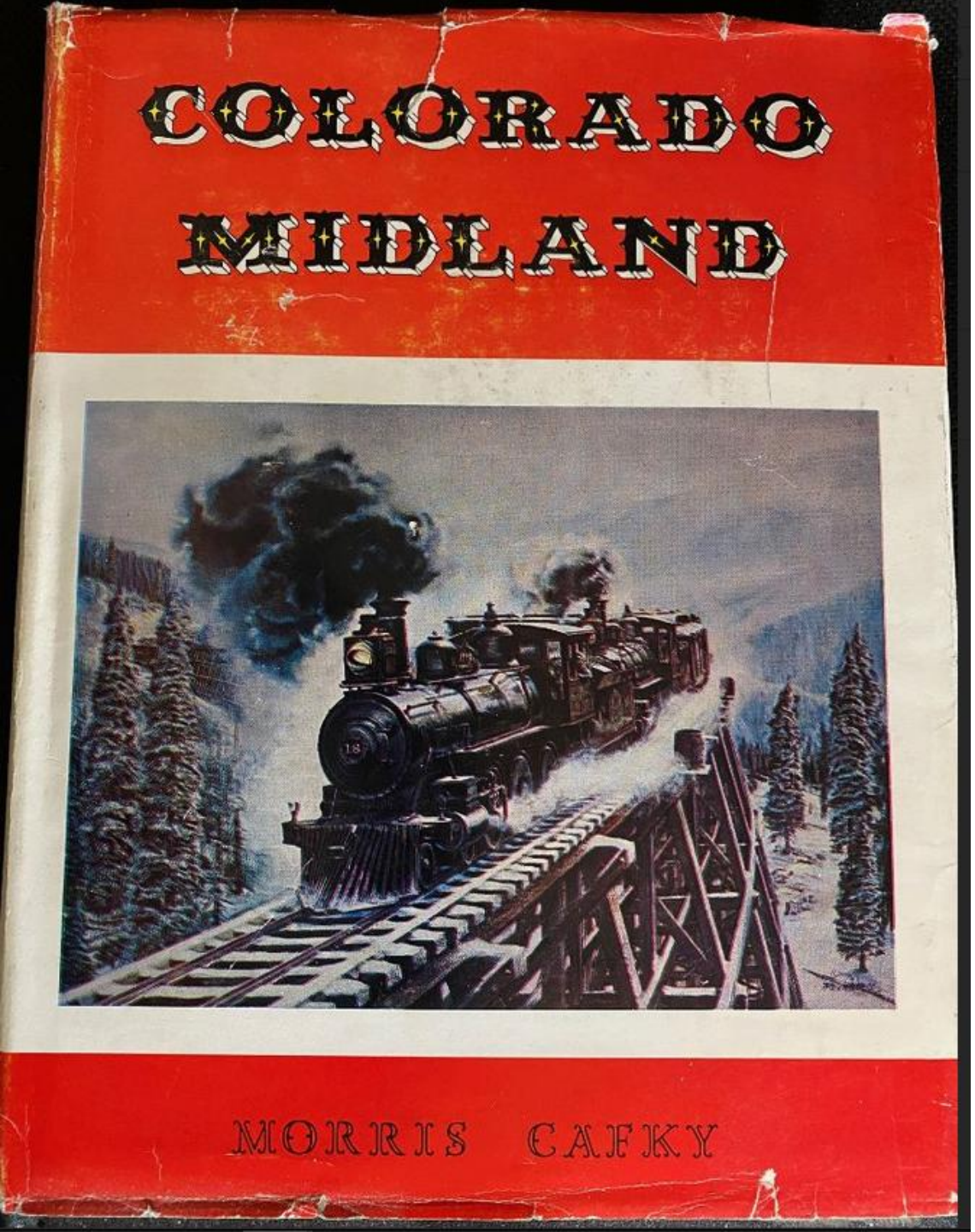
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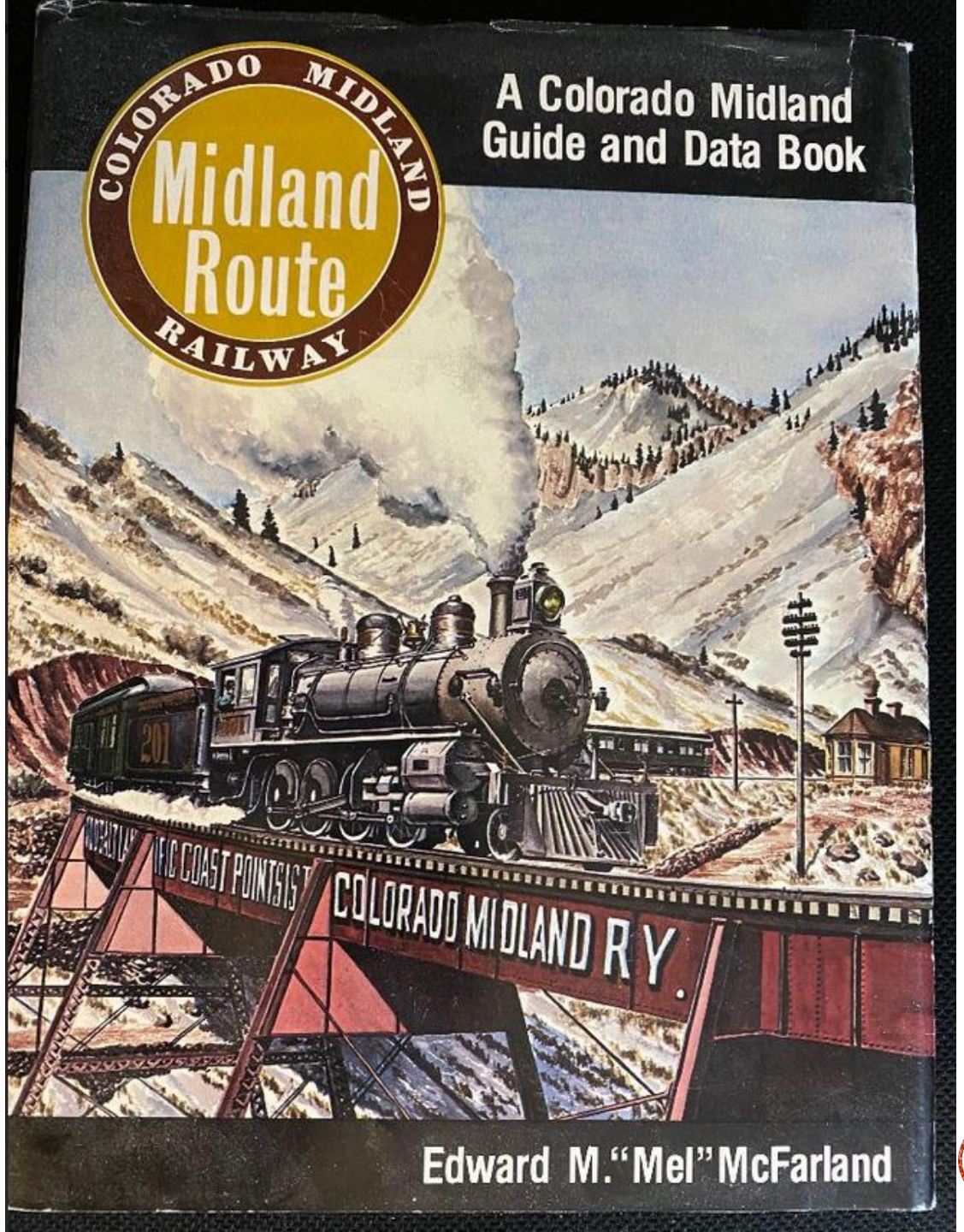
JMRI OperationsPro™

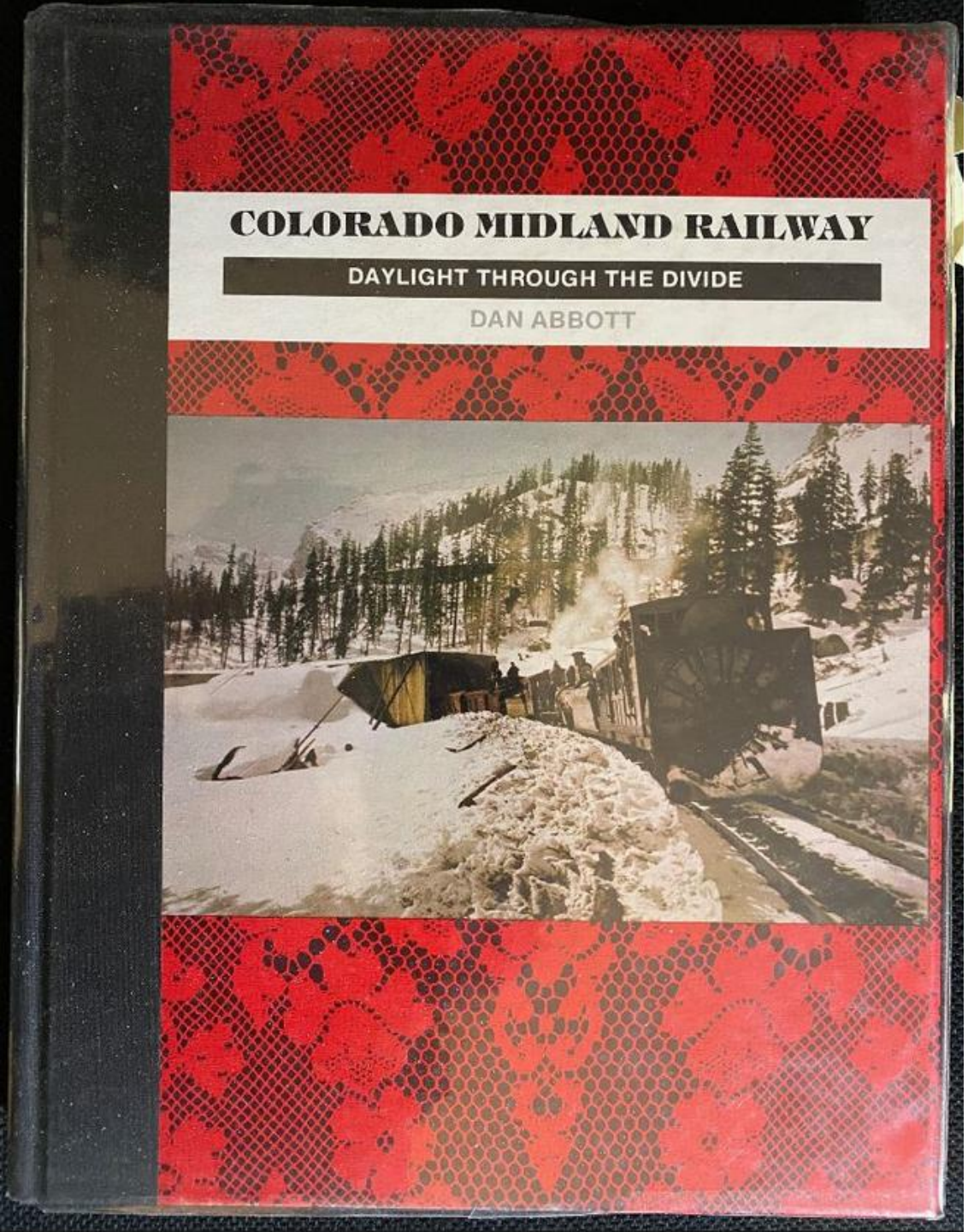
COLORADO MIDLAND RAILWAY

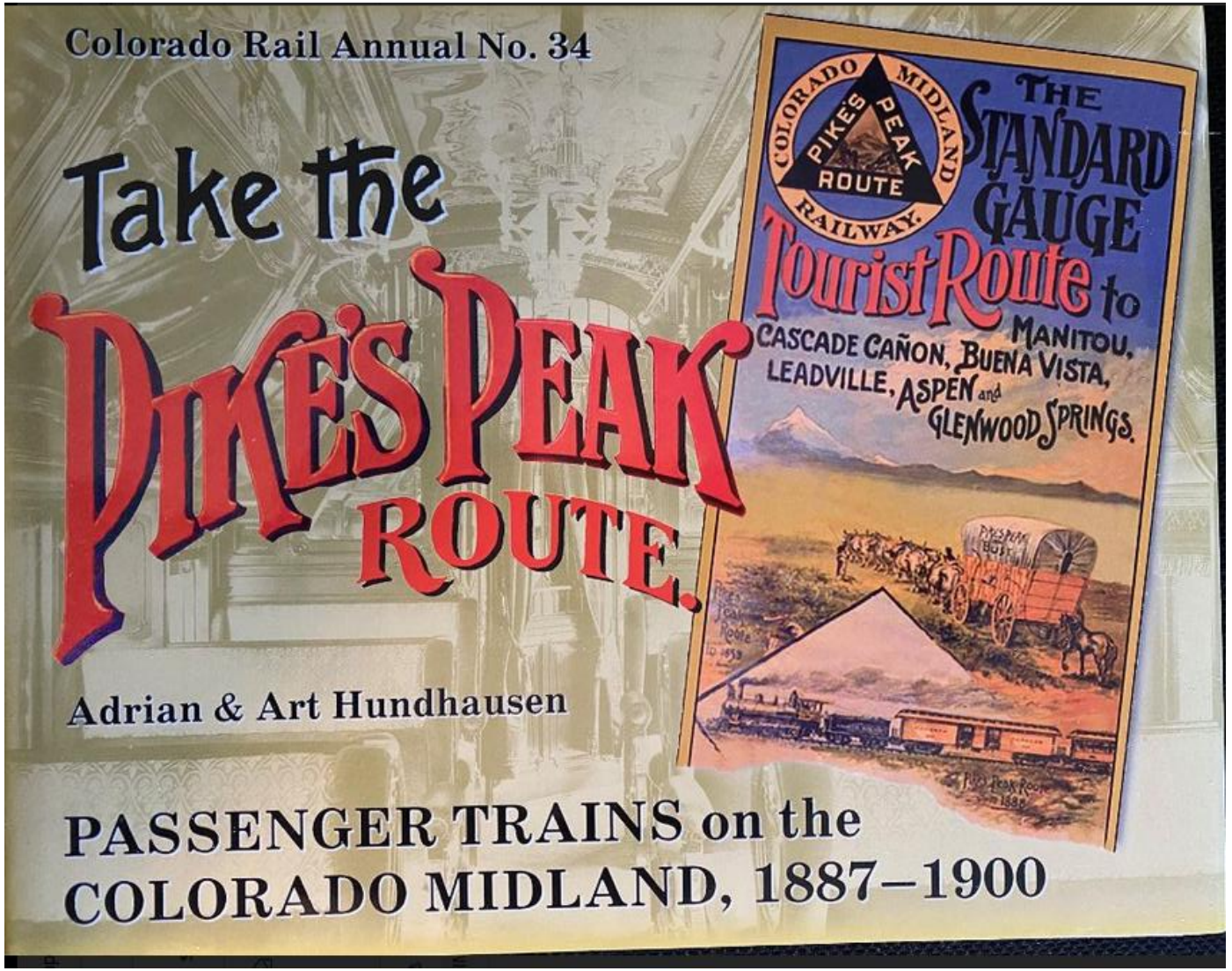


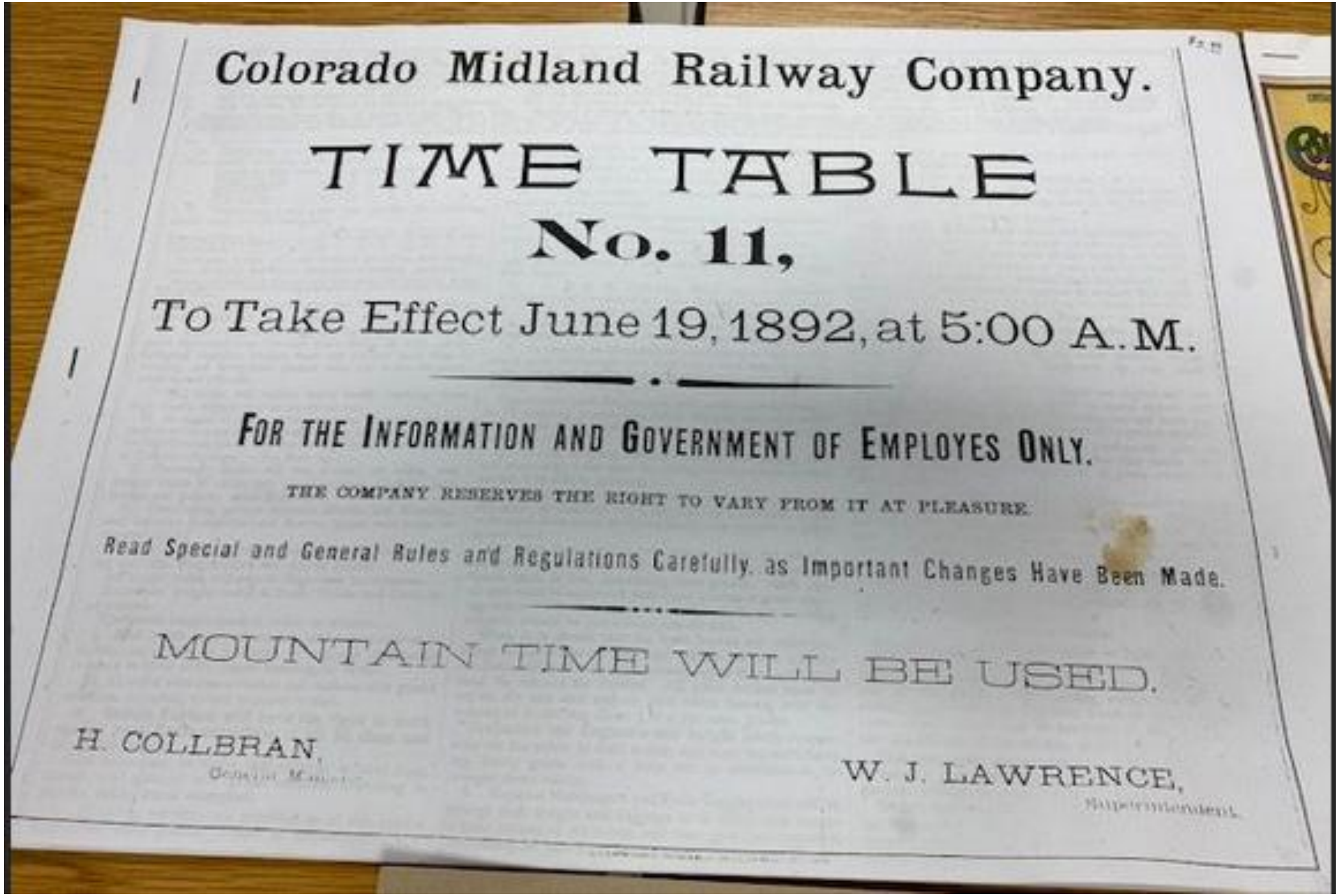
- 2nd division CM: Leadville <-> Cardiff-Glenwood Springs
- 1895-1901 era
- NCE wireless
- WiThrottle™ EngineDriver™ enabled for cell phones
- Steam locomotives (4-6-0, 2-8-0)
- 34ft freight, 55ft passenger cars
- 16x18, 5x15 Basalt extension


COLORADO
MIDLAND
MORRIS CAFKY


COLORADO MIDLAND
Midland Route
RAILWAY
A Colorado Midland Guide and Data Book
COLORADO MIDLAND R.Y.
Edward M. "Mel" McFarland


COLORADO MIDLAND RAILWAY
DAYLIGHT THROUGH THE DIVIDE
DAN ABBOTT


Colorado Rail Annual No. 34
Take the
PIKE'S PEAK
ROUTE.
Adrian & Art Hundhausen
PASSENGER TRAINS on the
COLORADO MIDLAND, 1887–1900
COLORADO MIDLAND
PIKES PEAK
ROUTE
RAILWAY.
THE STANDARD GAUGE
Tourist Route to
MANITOU,
CASCADE CAÑON, BUENA VISTA,
LEADVILLE, ASPEN and
GLENWOOD SPRINGS.


Colorado Midland Railway Company.

TIME TABLE
No. 11,

To Take Effect June 19, 1892, at 5:00 A.M.

FOR THE INFORMATION AND GOVERNMENT OF EMPLOYES ONLY.

THE COMPANY RESERVES THE RIGHT TO VARY FROM IT AT PLEASURE.

Read Special and General Rules and Regulations Carefully, as Important Changes Have Been Made.

MOUNTAIN TIME WILL BE USED.

H. COLLBRAN,
General Manager.

W. J. LAWRENCE,
Superintendent.

SECOND DIVISION—RUNNING WEST.

Second Class.

71 Local Freight. Lv. Daily.	55 Freight. Lv. Daily.	53 Denver Fast Freight. Lv. Daily.	51 Freight. Lv. Daily.	45 Utah and Colorado Fast Freight. Lv. Daily.	37 Local Freight. Lv. Daily, EXCEPT SUNDAY.	33 Aspen Fast Freight. Lv. Daily.	31 Freight. Lv. Daily.
	9:55 AM M 54 & 34	7:05 AM M 34	7:40 PM M 36	6:25 PM M 52	9:30 AM M 54 & 40	10:30 AM M 54 & 40	7:20 PM M 36
	10:15 AM	7:35 AM	7:55 PM	6:40 / 7:05 M 56	8:00 / 10:15	10:45 / 11:10 AM	7:35 / 6:55
				7:54	11:05	12:01 PM	8:55
				8:30 / 8:30	11:40 / 11:50 AM	12:35 / 12:45 M 38	9:00 / 9:40
				8:57	12:15 PM M 38	1:07	10:00
				9:19	12:45	1:37 M 4	10:20
				9:37 / 9:47	1:15 / 1:25 M 4	2:00 / 2:10	10:48 / 10:58 M 32
				10:08 M 32	1:50	2:30	11:13 M 2
				10:26	2:20	2:55	11:45 PM
				10:51 M 2	2:45	3:20	12:15 AM
				11:00	2:55	3:30	12:25
				11:20	3:10	3:50	12:55 M 34
				11:40	3:30	4:10	1:15
				11:50	3:45	4:20	1:25
				11:55 PM	3:55	4:25	1:30
				12:10 AM M 34	4:10	4:40	1:45
4:50 AM				12:30 / 1:00	4:30 PM	5:00 PM	2:10 M 46 AM
5:10				1:20			
5:30				1:30			
5:50				2:00 M 46			
6:25 / 6:40				2:25			
7:00				2:43			
7:20				2:58			
7:45				3:18			
7:50				3:23			
8:00 AM				3:30 / 3:35 AM			
				This Train will be run on the Time Table and subject to the Rules of the Rio Grande Junction Railway, between New Castle and Grand Junction.			
				7:30 AM			
Ar. Daily.	Ar. Daily.	Ar. Daily.	Ar. Daily.	Ar. Daily.	Ar. Daily, EXCEPT SUNDAY.	Ar. Daily.	Ar. Daily.

Train 45 will do Local Work between New Castle and Grand Junction.

TIME TABLE No. 11.

In Effect June 19, 1892—5:02 A. M.

STATIONS.

Distance from Atlantic Division.	Distance from Pacific Division.		Passenger Stations.		Freight Stations.	Grades per Hundred Feet.
Miles.						
135.5		W	LEADVILLE.	M		400
			5.0			
130.5			ARKANSAS JCT.	M		Y 145
			6.2			
124.3		W	BUSK.	D		19
			5.6			
118.8			HAGERMAN.	M		17
			4.0			
114.8		W	IVANHOE.	D		93
			5.1			
109.7			TUNNEL SPUR.			37
			4.3			
105.4		W	BELLAH.	M		Y 93
			3.0			
102.4			NAST.			35
			4.3			
98.1			NORRIE.			94
			2.0			
96.1			LIME CREEK.			93
			0.9			
95.2			THOMASVILLE.	M		93
			1.7			
93.5			MILLER CREEK.			8
			3.5			
90.0		W	RUEDI.	D		93
			3.8			
86.2			HOPKINS.			9
			2.1			
84.1			SLOANE.			93
			1.1			
83.0			PEACH BLOW.	D		9
			3.1			
79.9			CASTLES.			93
			4.8			
75.1		W	ASPEN JUNCTION.	M		Y 200
			3.7			
71.4			SHERMAN.			33
			2.5			
68.9			WHEELER.			61
			0.4			
68.5			SANDS.			63
			7.5			
61.0		W	CARDIFF.	M		Y 160
			3.6			
57.4			GLENWOOD.	D		73
			4.3			
53.1			SOUTH CANON.			90
			4.0			
49.1			COALRIDGE.			6
			1.3			
47.8			VULCAN.			62
			1.4			
46.4			D. & R. G. CROSSING.			
			0.3			
46.1		W	NEW CASTLE.	M		Y 200
			0.8			
45.3			SILT.			44
			2.0			
43.3			ANTLERS.			6
			4.3			
39.0		W	RIFLE.	M		Y 162
			8.9			
30.1			MORRIS.			53
			8.4			
21.7			PARACHUTE.	D		94
			4.8			
16.9			UNA.			94
			7.0			
9.9		W	DE BEQUE.	M		120
			9.7			
0.2			CABEZA.			94
			4.2			
	4.0		TUNNEL.			61
			5.0			
	9.0		CAMEO.			59
			4.9			
	13.9	W	PALISADE.	D		77
			5.3			
	19.2		CLIFTON.			43
			6.5			
	25.7	W	GRAND JUNCTION.	M		200

First Class.

1 Pacific Express. Lv. Daily.	3 Utah and Colorado Express. Lv. Daily.	15 Atlantic Express. Lv. Daily.
9:03 PM M 52	6:35 AM	12:30 AM
9:19	6:30 M 34	12:35 M 15 AM
9:43	6:00	
10:05 / 9:15	6:39 / 6:57	
9:33	6:40 M 46	
9:37	7:03	
9:40	7:10	
7:00	7:30	
7:12	7:40	
7:33	7:50	
7:37	7:56	
7:35	8:03	
7:45	8:13	
7:51	8:10 M 38	
7:54	8:22	
8:02 M 32	8:31	
8:15 / 8:33	8:46 / 9:06	
9:31	9:14	
9:36	9:20	
9:47	9:33	
9:00	9:48	
9:10 M 2	10:00	
9:21	10:10	
9:33	10:22	
9:30	10:25 M 4	
9:42 PM	10:30 AM	
This Train will be run on the Time Table and subject to the Rules of the Rio Grande Junction Railway, between New Castle and Grand Junction.	This Train will be run on the Time Table and subject to the Rules of the Rio Grande Junction Railway, between New Castle and Grand Junction.	
12:05 AM	12:50 PM	
Ar. Daily.	Ar. Daily.	Ar. Daily.

See Special Rules regarding Inspection of Freight and Passenger Trains at Hagerman. All Trains will be inspected in Snow Sheds, Immediately East and West of Hagerman Siding, and all Trains will approach these Sheds with Caution. Trains, while being Inspected, must be protected, as per Flagging Rules.

All Main Line Switches at Arkansas Junction will be left Right for Second Division.

COLORADO MIDLAND QUARTERLY

COLORADO MIDLAND QUARTERLY
The Colorado Midland Railway official publication. Issued by calendar year in February, May, August and November for the exchange of CMRy information for modelers and fans.
Mel McFarland, Editor; 475 Ocelot Dr.,
Colorado Springs, CO 80919 - 3708

NUMBER 152
AUGUST ,2018 ,

SWITCH ENGINE TAKEN OFF HERE: TRAINS AS USUAL

Effective Saturday, February 19, the switch engine and crew of the Midland Terminal will be discontinued here and at the loading station at Bull Hill. Train service will be continued as usual, officials of the railroad stated, with one train a day every day except Sunday. A train will be run on Sunday if there is sufficient tonnage of ore to require it. The train crew will collect all cars at the mines and take them to Bull Hill station, do the necessary switching, and take the incoming cars to Cripple Creek and Victor stations. Shipping of the Cycle and Ajax dumps will new discontinued for the duration of the war. (Cripple Creek, February 18, 1944)

SAMUEL MILWARD PIONEER,SUCCUMBS

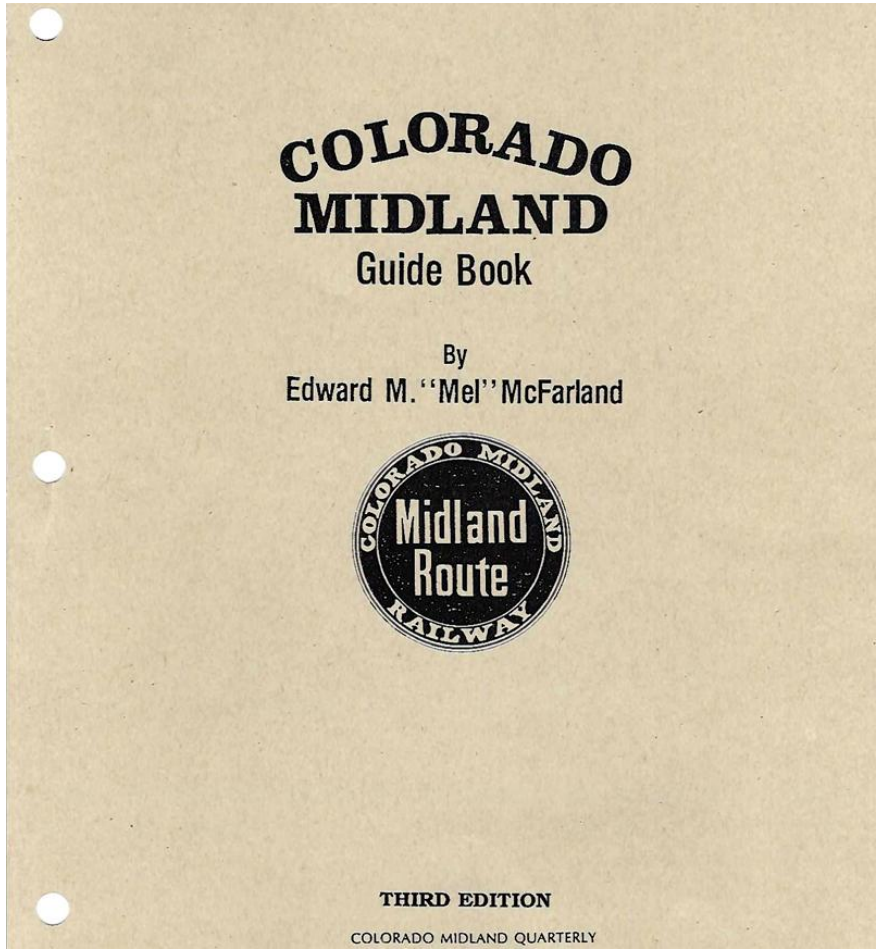
Samuel J Millward, 184 Cheyenne Blvd., a resident of Colorado springs for 50 years died Thursday at a local hospital. He was an engineer on the old Colorado Midland railroad.
(Colorado Springs, February 24, 1944)

CARSON MEDICAL GROUP PLANS COLORFUL TRIP

A trip to the Cripple Creek gold fields is planned in June. Some 200 medics will make the trip in the historic and plush coaches of the Midland Terminal railroad, one time favorite route of prospectors and hard rock miners. The chance discovery of four unused coaches in the car shed of the Midland, now operating freight only service to Cripple Creek, brought an excursion brainstorm to the medical group. The first trip will be June 4. the price is $2.30, a PX will be set up in one of the cars. A photo contest will also be held to select the best pictures taken on the trip. (Colorado Springs, May 19, 1944)

CARSON SOLDIERS RIDE THE MIDLAND

Not since 1931 have the red plush chair cars of the Midland Terminal carried passengers over the famous Cripple Creek road. Not since the middle twenties has the observation coach echoed the ohs and has of tourists as they climbed the $100,000 per mile Ute Canyon grade. That is happening again this weekend. The cars have left their retirement in the car sheds to bring a new generation of tourists, This time soldiers- medical soldiers from Camp Carson. The public



Muckawanago: Lumber out
Lime Creek: Company materials in/ out
Local Coal in/ emptys out
Finished Lime out
Thomasville: Eating house supplies/ Dining car supplies in/ out
Finished Lime out
Plaster out
Livestock in/ out (cattle or sheep)
Company coal in
Company materials in/ out
Lumber out
Lumbering equipment
Limestone processing equipment in/ out
Meredith: Lumber out
Ruedi: Company coal in
Finished Lime out
Plaster out
Quarry supplies in/ out
Processing equipment in/ out
Livestock in/ out (cattle or sheep)
Company materials in/ out
Lumber out
Lumbering equipment
Snider's Quarry Spur: Rough stone out
Cut stone out
Quarry equipment in/ out
Hopkins: Rough stone out
Cut stone out
Quarry equipment in/ out
Farm & Ranch supplies in/ out
Sloss: Farm & Ranch supplies in/ out
Company materials in/ out
Peach Blow: Quarry supplies in/ out
Rough stone out
Cut stone out
Taylor Creek: Farm & Ranch supplies in/ out
Basalt:Eating house supplies in/ out
Company materials in/ out
Company Coal in/ emptys out
Local Coal in/ emptys out
Mining equipment in/ out
Local Merchandise in/ out
Automobiles in/ emptys out
Produce in/ out
Transfers to Aspen Branch

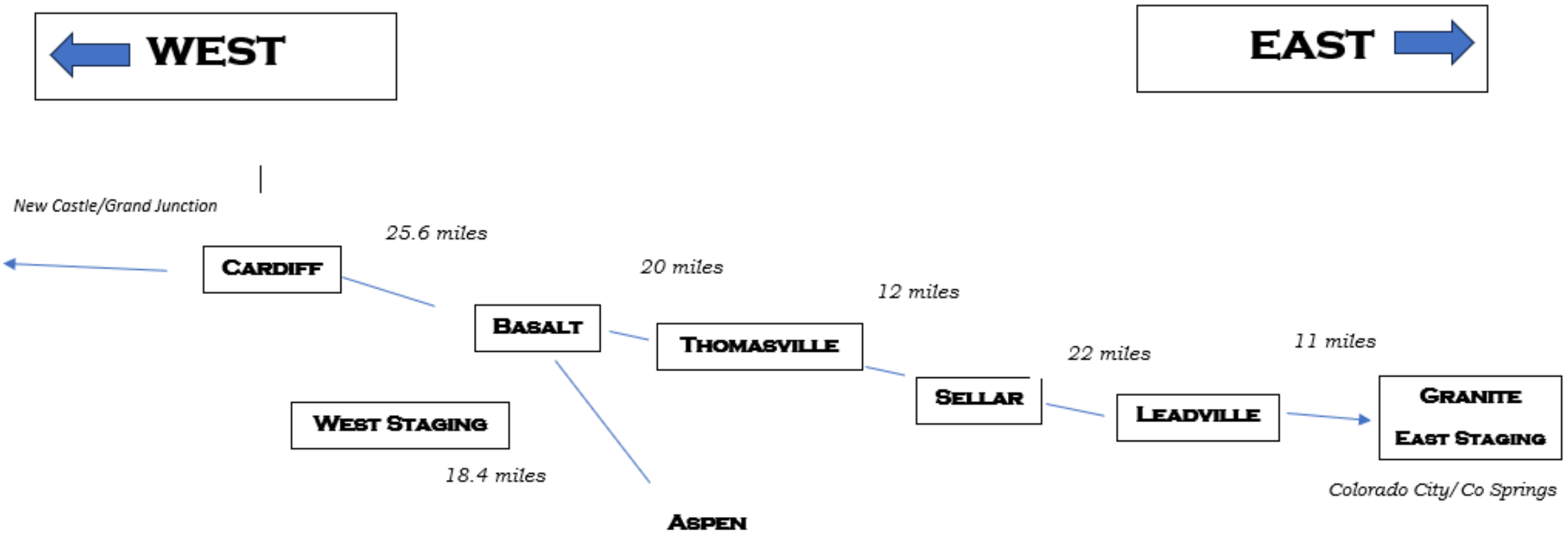
Snow Mass: Possible Farm & Ranch supplies in/ out
Possible mining equipment in/ out
Watson: Possible Farm & Ranch supplies in/ out
Possible mining equipment in/ out
Stapleton Spur: Local Coal loads in, emptys out
Possible mining supplies in/ out
Possible Lumber in/ out
limestone in
mill equipment in/ out
Aspen: Company Coal in/ emptys out
Local Coal in/ emptys out
Ore loads in/ out; Emptys in/ out
Mining equipment in/ out
Local Merchandise in/ out
Automobiles in/ emptys out
Chemicals & explosives in/ out
Company material in/ out
Lumber & Timbers in, emptys out
Pipe in/ out
Waste Rock out
Limestone in
Coke & Charcoal in
Livestock in/ out (cattle or sheep)
Produce in/ out

back to Basalt

El Jebel: Livestock in/ out
Farm & Ranch supplies in/ out
local coal in
Harris Spur: Farm & Ranch supplies in/ out
Local coal in
Wheeler: Farm & Ranch supplies in/ out
Local coal in
Catherine: Farm & Ranch supplies in/ out
Local coal in
Valley Spur: Farm & Ranch supplies in/ out
Local coal in
Emptys for rock loading
Brick Yard Spur: Emptys for brick , block loading
Local coal in
Carbondale: Livestock in/ out (Cattle or sheep)

The Colorado Midland Railway

Sept 1,1901




COLORADO
AND
MIDLAND


COLORADO
AND
MIDLAND
NTILATOR-REFRIGERATOR
COLORADO
5288
MIDLAND

LEADVILLE



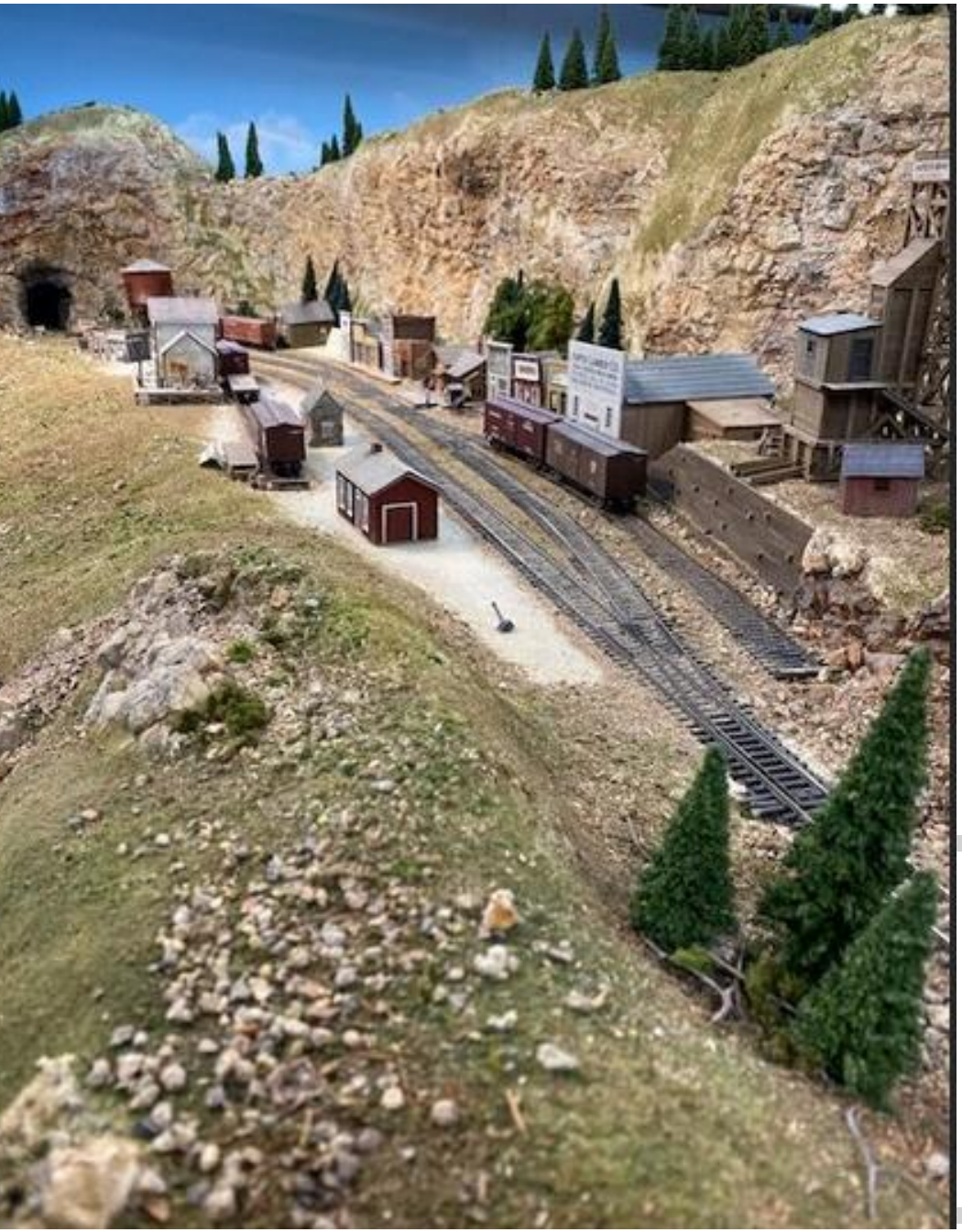


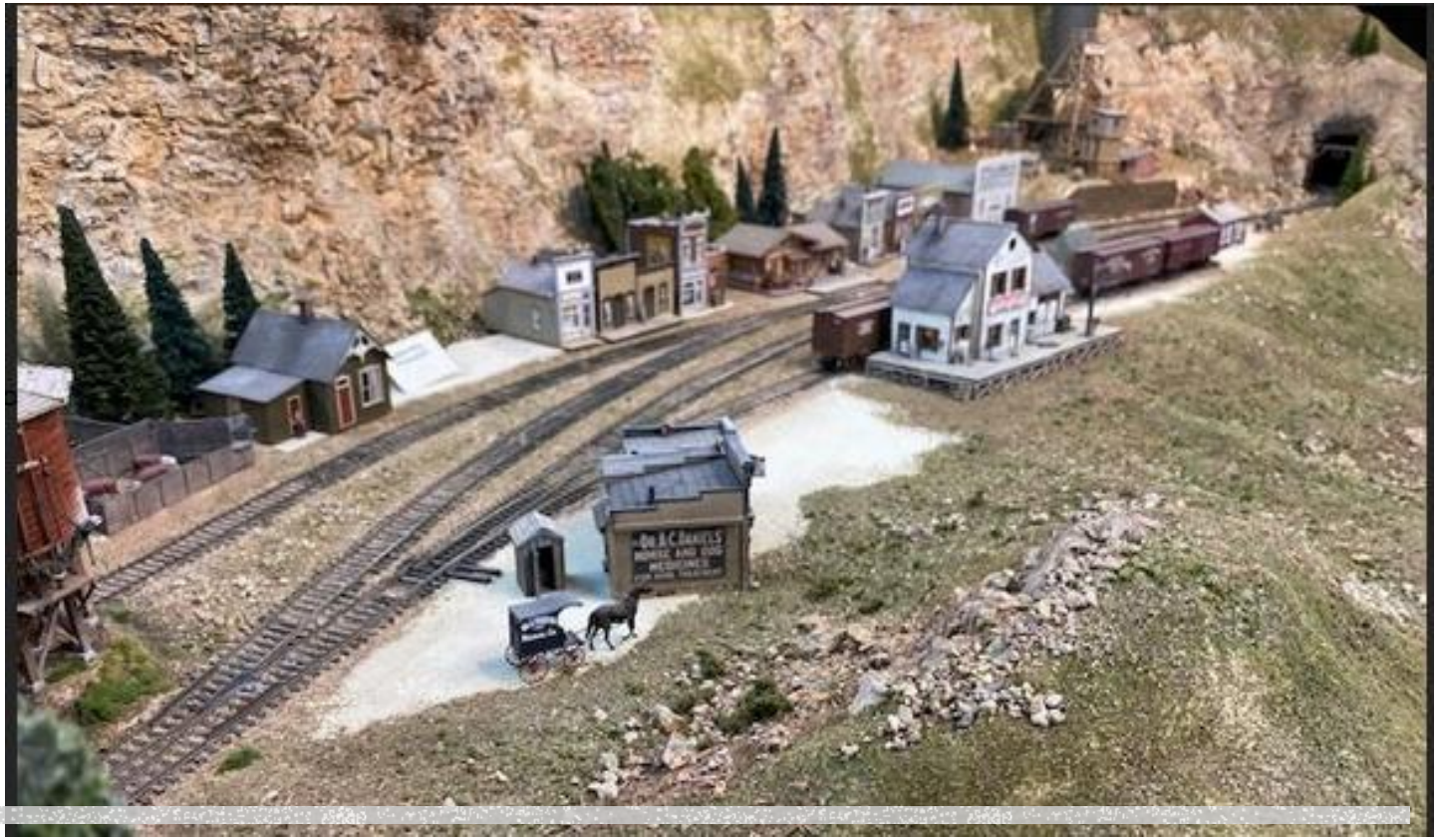


SELLAR


ado Midland Railway
tch List for * SELLAR *
cheduled work for Train #18E BAS-CAR EASTbound Coal run:
[ ] PULL CM 5100 Gondola from Silver Spur Mine Tipple
[ ] SPOT CM 7069 Gondola to Coal trestle
Train departs SELLAR Eastbound with 3 cars, 108 feet, 140 tons
Scheduled work for Train #45W COSprgs-GND JUNCT WESTbound STAGED:
[ ] PULL CM 4280 Stock from Stock Pen
[ ] SPOT CM 5338 Boxcar to Mitchell Merch & Feed
Train departs SELLAR Westbound with 4 cars, 156 feet, 178 tons
Scheduled work for Train #32E ASPEN-COSprgs EASTbound STAGED:
[ ] PULL ATSF 52604 Stock from Stock Pen
[ ] SPOT CM 4288 Stock to Stock Pen
ain departs SELLAR Eastbound with 4 cars, 156 feet, 202 tons
SELLAR
MP 1,551.7
EAST
WEST







THOMASVILLE





BASALT


F. D. WORK &
MINE
MILL
SUPPLIES
PAINTS
OILS
&
GLASS
SASH
&
DOORS
COLORADO MIDLAND
4288
PALACE
STOCK CAR
GREAT NORTHERN
5098







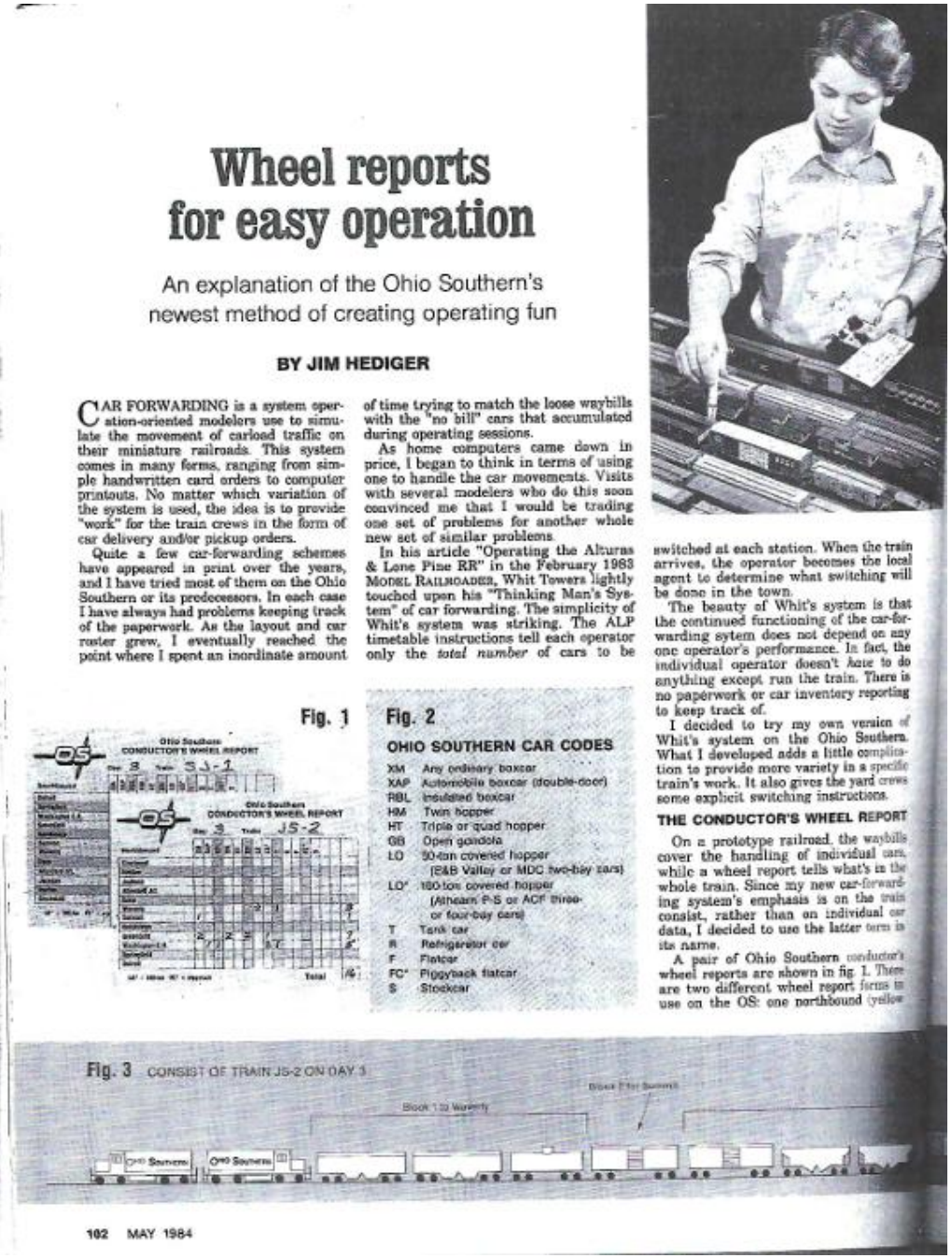
CARDIFF


C.M.R.Y.
5329
COLORADO
5347
MIDLAND
C.M.R.Y.
5347
COLORADO
5338
MIDLAND
C.M.RY.
5338

Operations – The Journey…

- Wheel Reports
- Car Cards and Waybills
- JMRI OperationsPro™





Wheel reports for easy operation

An explanation of the Ohio Southern's newest method of creating operating fun

BY JIM HEDIGER

CAR FORWARDING is a system operation-oriented modelers use to simulate the movement of carload traffic on their miniature railroads. This system comes in many forms, ranging from simple handwritten card orders to computer printouts. No matter which variation of the system is used, the idea is to provide "work" for the train crews in the form of car delivery and/or pickup orders.

Quite a few car-forwarding schemes have appeared in print over the years, and I have tried most of them on the Ohio Southern or its predecessors. In each case I have always had problems keeping track of the paperwork. As the layout and car roster grew, I eventually reached the point where I spent an inordinate amount of time trying to match the loose waybills with the "no bill" cars that accumulated during operating sessions.

As home computers came down in price, I began to think in terms of using one to handle the car movements. Visits with several modelers who do this soon convinced me that I would be trading one set of problems for another whole new set of similar problems.

In his article "Operating the Alturas & Lone Pine RR" in the February 1983 MODEL RAILROADER, Whit Towers lightly touched upon his "Thinking Man's System" of car forwarding. The simplicity of Whit's system was striking. The ALP timetable instructions tell each operator only the *total number* of cars to be switched at each station. When the train arrives, the operator becomes the local agent to determine what switching will be done in the town.

The beauty of Whit's system is that the continued functioning of the car-forwarding sytem does not depend on any one operator's performance. In fact, the individual operator doesn't *have* to do anything except run the train. There is no paperwork or car inventory reporting to keep track of.

I decided to try my own version of Whit's system on the Ohio Southern. What I developed adds a little complication to provide more variety in a specific train's work. It also gives the yard crews some explicit switching instructions.

THE CONDUCTOR'S WHEEL REPORT

On a prototype railroad, the waybills cover the handling of individual cars, while a wheel report tells what's in the whole train. Since my new car-forwarding system's emphasis is on the train consist, rather than on individual car data, I decided to use the latter term in its name.

A pair of Ohio Southern conductor's wheel reports are shown in fig. 1. There are two different wheel report forms in use on the OS: one northbound (yellow

Fig. 1

Fig. 2

OHIO SOUTHERN CAR CODES

XM	Any ordinary boxcar
XAP	Automobile boxcar (double-door)
RBL	Insulated boxcar
HM	Twin hopper
HT	Triple or quad hopper
GB	Open gondola
LO	90-ton covered hopper (E&B Valley or MDC two-bay cars)
LO'	100-ton covered hopper (Athearn P-S or ACF three- or four-bay cars)
T	Tank car
R	Refrigerator car
F	Flatcar
FC'	Piggyback flatcar
S	Stockcar

Fig. 3 CONSIST OF TRAIN JS-2 ON DAY 3

Wheel Reports

Wheel reports for easy operations.
Hediger, Jim.
Model Railroader. May 1984

Run the trains
Pick-ups and set-outs are equal
Blocking order: by towns
Through-cars in front of the caboose



A Primer for Narrow Gauge and Short-line Operations

Barry J. Cott

Contents Copyright ©1999-2004



SITE NAVIGATION

- Home Page
- Member Login
- About the Operations SIG
- Join Us!
- Virtual Meetups
- The Dispatcher's Office
- Resources and Links

Welcome!

The principal purpose of the Operations Special Interest Group (OPSIG) is to discuss, develop and disseminate ways of operating model railroads to realistically emulate practices of the prototype. This includes sharing information on various methods of generating, moving and controlling traffic to heighten the feeling that our models are an active and integral part of the national rail transportation network, serving shippers and consignees throughout the nation. We also discuss and communicate information about the methods and procedures used by the real railroads and ways of most practically and realistically adapting them to the model world. So if you like to operate the railroad you've created, this is a place to learn more and find others with similar interests.

We publish a quarterly magazine, *The Dispatcher's Office*, which in addition to containing articles and information on railroad operations (both prototype and model), contains listings of operating layouts, sessions, and events that members are invited to attend. In addition, the OPSIG web site serves as a clearinghouse for publicizing regional operating events and meetings, where layouts are open for guest operations. We also have a Facebook page and send out the *Second Section* email newsletter on a regular basis.

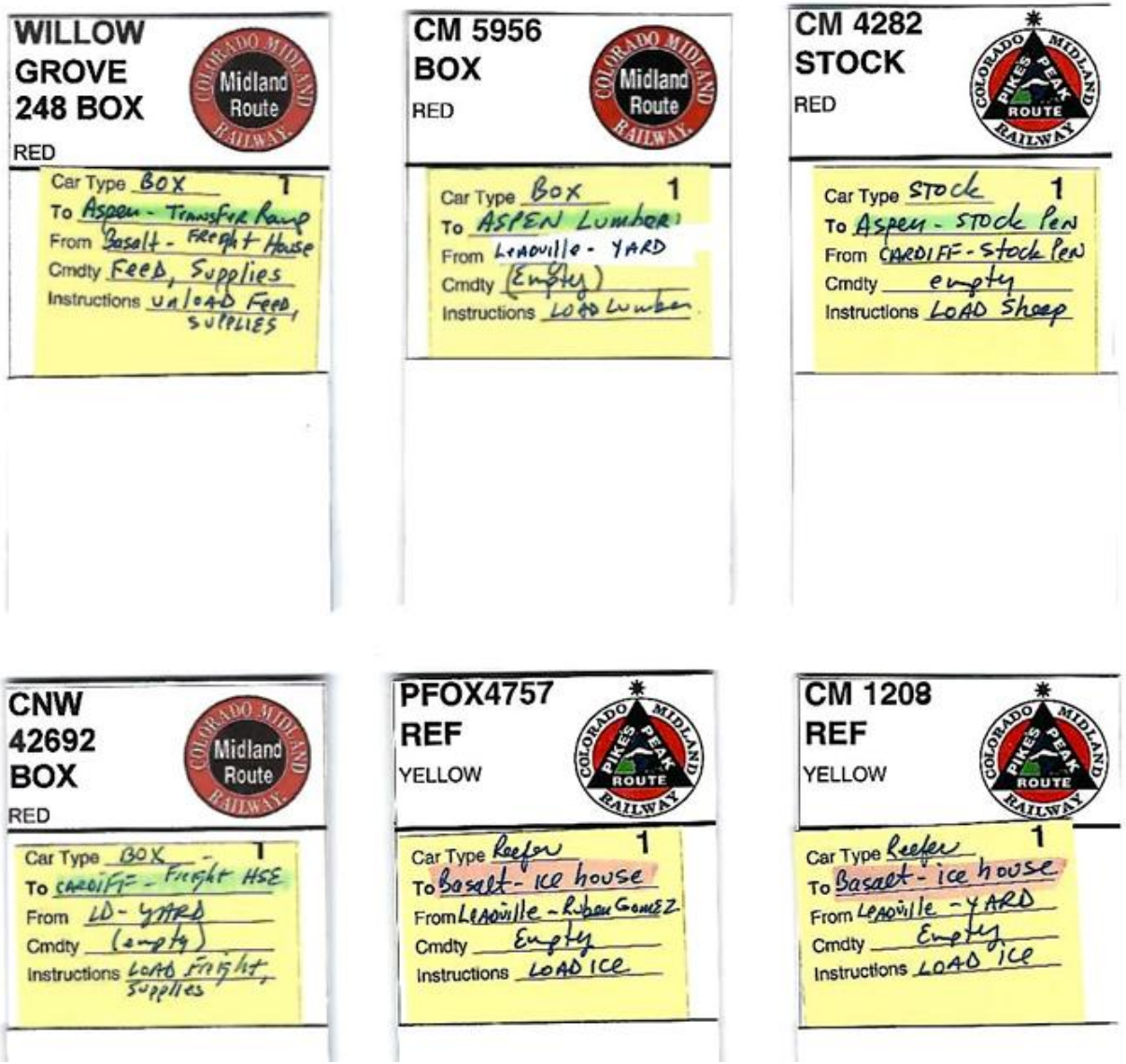
What's New?

My Railroads and Railroad Directory Feature

In the past, the membership application included space to let people enter their personal railroad information, as well as club railroad information. In order to allow more detail and to simplify the membership application, personal and club railroads are now managed under a new My Railroads feature. To help describe your railroad, there are a lot more fields available to describe your railroad and your operations scheme. You can also add photos of your railroad, as well as links to your social media and websites.

After you've added your railroad, it will appear in the Railroad Directory, which is restricted to members of the OpSIG.

Last Updated on August 10, 2024



- 4-cycle Car Cards and Waybills created in Microsoft Excel

JMRI OperationsPro™

Why OperationsPro™

- Free download. Integrated with DecoderPro™
- Randomness car forwarding (it works for me…)
- Computer forces freight car "balancing" and assignments
- Manifests and switch lists highly editable
- Quick set-up for next op session vs car cards/waybills

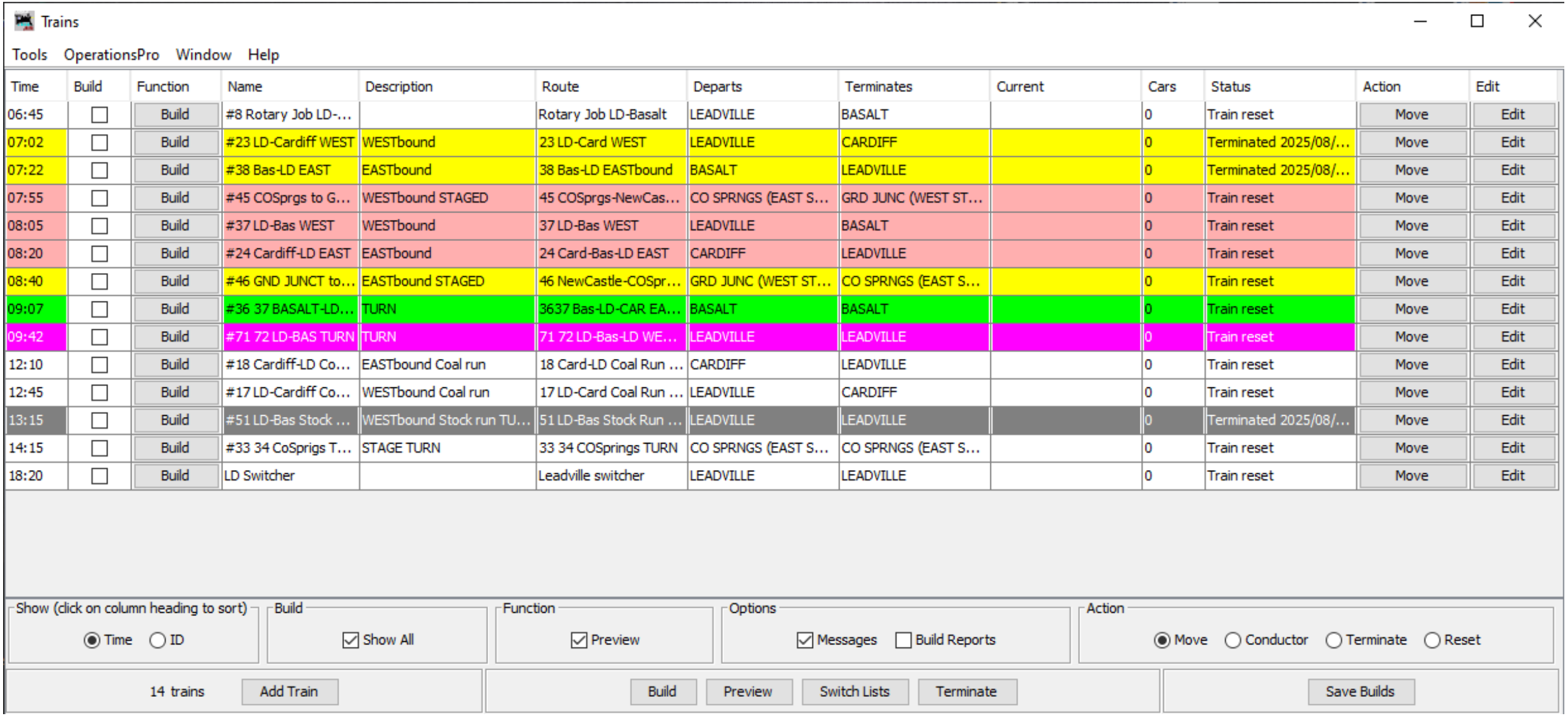
JMRI OperationsPro™

Phase 1 Learn OperationsPro™

- Settings
- Cars
- Locations
- Routes
- Trains

Full-page manifest for each train (pickups & set-outs)

Future enhancement?: implement SCHEDULES



Preview and print the manifest

The Colorado Midland Railway Company 1895-1902

Manifest for train (#74 EXTRA Card-LD EAST) # 74 CARDIFF -> LEADVILLE EASTbound
Valid 6/01/1901 08:09 AM
- This job is EASTbound starting in:
[] CARDIFF. Stops in:
[] BASALT
[] THOMASVILLE
[] SELLAR
Terminates in [] LEADVILLE.

Scheduled work at CARDIFF, departure time 06:07 AM
Engine #:_____ Add caboose.
Water stop.

[ ]	PULL	CM	5176	Boxcar	E from Freight depot -> BASALT
[ ]	PULL	CM	5347	Boxcar	L from Coke Ovens -> THOMASVILLE
[ ]	PULL	REDBALL	929	Boxcar	L from Freight depot -> LEADVILLE

Train departs CARDIFF Eastbound with 2 loads, 1 empties, 118 feet, 159 tons

Scheduled work at BASALT, arrival time 08:09 AM
Consider adding helper engine#_____ from engine house.
Water stop.

[ ]	PULL	CM	5587	Boxcar	E from Ice House -> THOMASVILLE
[ ]	PULL	TM	542	Tank Kero	E from Team Track -> SELLAR
[ ]	PULL	CM	4201	Stock	L from Clingmin's Coal&Lumber -> LEADVILLE
[ ]	SPOT	CM	5176	Boxcar	E to T. Olson Merch.& Produce

Train departs BASALT Eastbound with 3 loads, 2 empties, 198 feet, 252 tons

Scheduled work at THOMASVILLE, arrival time 08:09 AM
Water stop.

[ ]	PULL	CM	5230	Boxcar	E from Aspen Lumber -> SELLAR
[ ]	PULL	CM	527	Flatcar	E from Aspen Mine Warehouse -> LEADVILLE
[ ]	SPOT	CM	5347	Boxcar	L to Aspen Lumber
[ ]	SPOT	CM	5587	Boxcar	E to Gilbert Merch & Farm

Train departs THOMASVILLE Eastbound with 2 loads, 3 empties, 198 feet, 205 tons

Scheduled work at SELLAR, arrival time 09:41 AM
Water stop.

Phase 1
Complete Manifest

OPS SESSION

- Run two or three trains simultaneously
- 4 Operators: two operator pairs (engineer & conductor). Lots of discussions… A 5th operator to run the passenger train, etc. Provides a break for other operators or else eats the snacks.
- Maximum of 4-5 cars per train
- NCE wireless throttles and cell phone throttles (WiThrottle, Engine Driver, TCS)
- Each town has paperwork stand, uncoupling picks, pencils, paper flagmen, and information cards





- Fascia:
- Angled platforms to place train orders and switch-lists at each town. Cell phone throttles also fit
- Keep paperwork off the scenery
- Small clipboards and aprons also available but unnecessary

OPS SESSION CON'T

- All locomotives are speed-matched. Tsunami 2 decoders
- Locomotives have momentum and F6 brake function
- Double-headed locomotives: two operators using separate throttles. Three locomotives for the rotary job.
- Scheduled passenger train(s) and thru-freight to create extra havoc (5th operator)
- Recent layout enhancements:
  - West and East staging tracks allow greater flexibility
  - Reverse wye at Basalt to reverse locomotives (in addition to Leadville)

JMRI OPERATIONSPRO™

Phase 2

- Stop using complete train manifests. Not prototypical
- Keep Random car routing for now (vs Schedules).
- Create separate switch lists for each town to simulate local station agents. Less paperwork to carry
- At each town operators review the station agent's switch list, identify their train, then perform their work.

(but there were still issues…)

Sellar switch-list for conductor/engineer: Multiple trains on <u>same</u> switch-lists Problems with this setup – Very Busy

The Colorado Midland Railway Company 1895-1902

Switch List for SELLAR
Valid 6/01/1901 09:46 AM

Scheduled work for train (#51 LD-Cardiff WEST) # 51 LEADVILLE-> CARDIFF WESTbound
Departs LEADVILLE at 06:05 AM expected arrival 09:09 AM, arrives Westbound
Water stop.

[ ] PULL GN	5098	Stock	E from Stock Pen	-> THOMASVILLE
[ ] PULL GN	5029	Stock	L from Stock Pen	-> BASALT
[ ] PULL CM&St P	27238	ReeferIce	E from Mitchell Merch & Feed	-> BASALT
[ ] SPOT ATSF	95001	Tank Kero	E to Deutner Warehouse	
[ ] SPOT CM	5329	Boxcar	E to Mitchell Merch & Feed	

Train departs SELLAR Westbound with 2 loads, 3 empties, 200 feet, 213 tons

Scheduled work for train (#74 EXTRA Card-LD EAST) # 74 CARDIFF -> LEADVILLE EASTbound
Departs CARDIFF at 06:07 AM expected arrival 09:41 AM, arrives Eastbound
Water stop.

[ ] PULL DSS&A	8500	Boxcar	E from Mitchell Merch & Feed	-> LEADVILLE
[ ] SPOT TM	542	Tank Kero	E to LipperBros. Warehouse	
[ ] SPOT CM	5230	Boxcar	E to Stock Pen	

Train departs SELLAR Eastbound with 2 loads, 2 empties, 154 feet, 180 tons

JMRI OPERATIONSPRO™

Phase 3

- Separate hand-written switch-lists for each train at each town
- Preprinted train orders outlining each job
- Pre-built staged trains to get things going
- But wait, did the Colorado Midland use computers and printers in 1901 ??

    Local "Extras" handwritten on CM Forms 19 and 31

    CM Clearance cards handwritten for each train

JMRI OPERATIONSPRO™

- Switch-lists for <u>each</u> train at <u>each</u> station. Folded in half
- Left side for pick-ups (PULLS)
- Right side for setouts (SPOTS)
- Creates smaller handheld paperwork.

Labor intensive to write



36E/35W: Basalt-Leadville-Basalt Local Freight TURN

EASTbound, then WESTbound TURN

Departs: Basalt Terminates: Basalt

Basalt ⟹ Thomasville ⟹ Sellar ⟹ Leadville
Basalt ⟸ Thomasville ⟸ Sellar ⟸

Basalt: Verify Form 19/31, engine and caboose
Pull cars, water, brake test
Add helper engine if desired (Form 19)
Thomasville: Pull and spot cars
Return helper to Basalt (light) or continue
Water and brake test
Sellar: Pull and spot cars
Water and brake test
Leadville: Pull and spot cars.
Turn engine(s) on turntable
Sand, coal, water
Reattach helper if using
Water and brake test
Sellar: Pull and spot cars
Water and brake test
Thomasville: Pull and spot cars
Water and brake test
Basalt: Spot cars, caboose to available spur
Retire engine to engine house
Retire helper if using

FORM 19

Form 2045. STANDARD.

COLORADO MIDLAND RAILWAY CO.

George W. Vallery, Receiver

FORM 19

TRAIN ORDER NO. 36 E September 2 1901

To C.& E. ENGINE [redacted]

At BASALT STATION X Opr.; M.

ENGINE [redacted] EAST RUN EXTRA
BASALT to LEADVILLE AND
Return to BASALT
Helper engine [redacted] MUST ASSIST
ENGINE [redacted] EAST FROM BASALT
to Thomasville and Return to
BASALT

CONDUCTOR AND ENGINEMAN MUST EACH HAVE A COPY OF THIS ORDER.

Made [redacted] Time 8102 A M. J. S. [redacted] Opr.

FORM 710

TRAIN CLEARANCE TICKET.

THE COLORADO MIDLAND RAILWAY.

September 2 1901

Conductor and Engineman No. [redacted]

I have no orders for your train except "31" orders. 0
And "19" orders. Ful. O.

Signal is out for .....

J. S. [redacted] Operator.

This does not interfere with or countermand any orders you may have received.
Conductor and Engineman MUST SEE that the number of THEIR TRAIN is entered in the above form correctly and that they each have a copy of every order enumerated above.
Conductors and Engineman must each have a copy.
Engineers MUST write their names across face of the Conductor's Card, which will be their receipt for the card and orders.
Conductors will send all their Clearance Cards to Trainmaster at Leadville at the end of each trip.

FORM 19

Form 2045. STANDARD.

COLORADO MIDLAND RAILWAY CO.

George W. Vallery, Receiver

FORM 19

TRAIN ORDER NO. 36 H September 2 1901

To C.& E. Engine Helper

At Basalt STATION X Opr.: M.

HELPER
ENGINE ___ RUN EXTRA EAST
FROM BASALT to Thomasville

Helper ENGINE MUST ASSIST
ENGINE ___ EAST FROM
BASALT TO THOMASVILLE AND
Return to BASALT

CONDUCTOR AND ENGINEMAN MUST EACH HAVE A COPY OF THIS ORDER.

Made Conductor Time 7:40 A.M. J E P Opr.

FORM 19

Form 2045. STANDARD.

COLORADO MIDLAND RAILWAY CO.

George W. Vallery, Receiver

FORM 19

TRAIN ORDER NO ___ September 2 1901

To C.& E. ENGINE ___ WEST

At Thomasville STATION X Opr.: M.

EXTRA ENGINE ___ WEST meet
EXTRA ENGINE ___ EAST AT
Thomasville

EXTRA ENGINE ___ WEST TO TAKE
SIDING AT Thomasville

CONDUCTOR AND ENGINEMAN MUST EACH HAVE A COPY OF THIS ORDER.

Made Conductor Time 9:10 A.M. J E P Opr.



- Returned to computer generated switch-list.
- Updated format by reducing text and enhance clarity

Colorado Midland Railway

Switch List for * SELLAR *

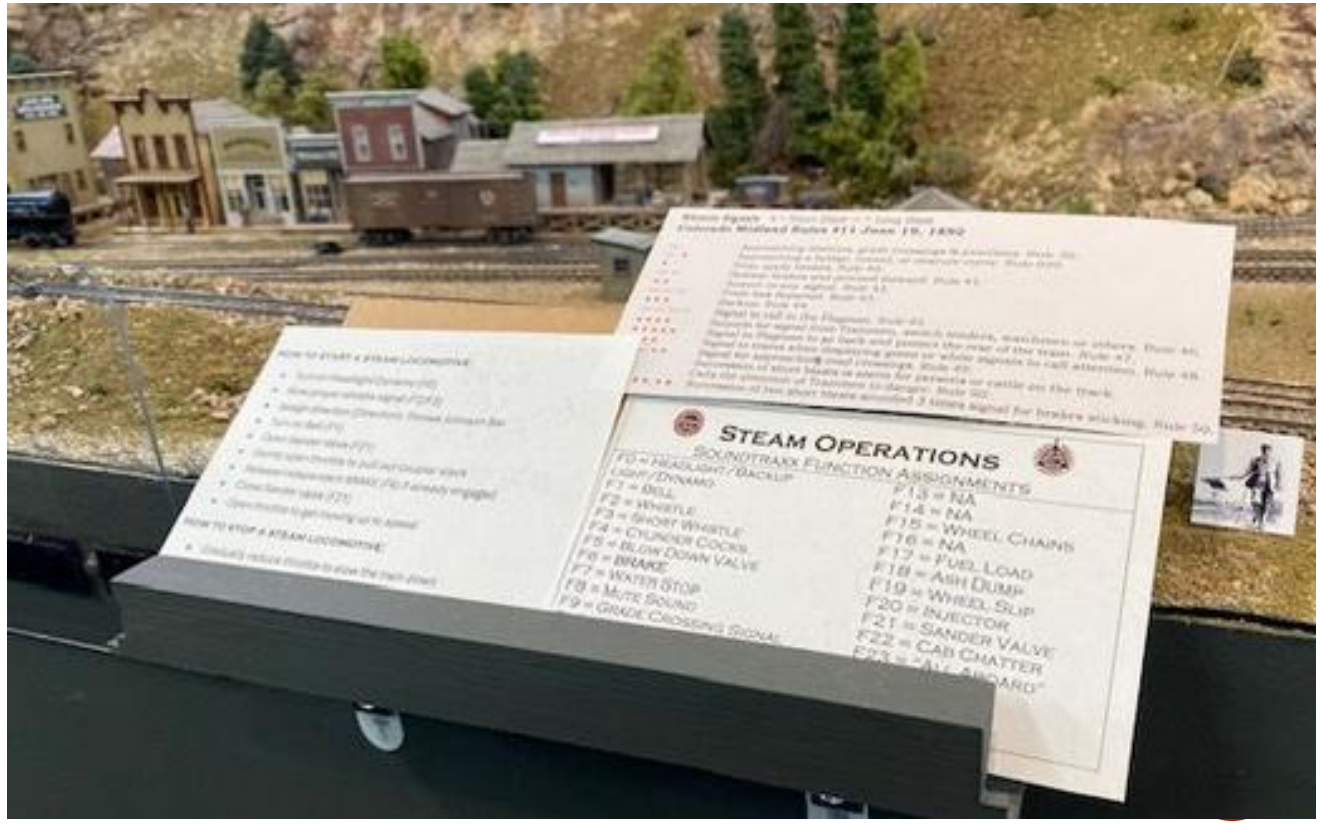
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[ ] SPOT CM 7069 Gondola to Coal trestle
Train departs SELLAR Eastbound with 3 cars, 108 feet, 140 tons

Scheduled work for Train #45W COSprgs-GND JUNCT WESTbound STAGED:
[ ] PULL CM 4280 Stock from Stock Pen
[ ] SPOT CM 5338 Boxcar to Mitchell Merch & Feed
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[ ] SPOT CM 4288 Stock to Stock Pen
Train departs SELLAR Eastbound with 4 cars, 156 feet, 202 tons

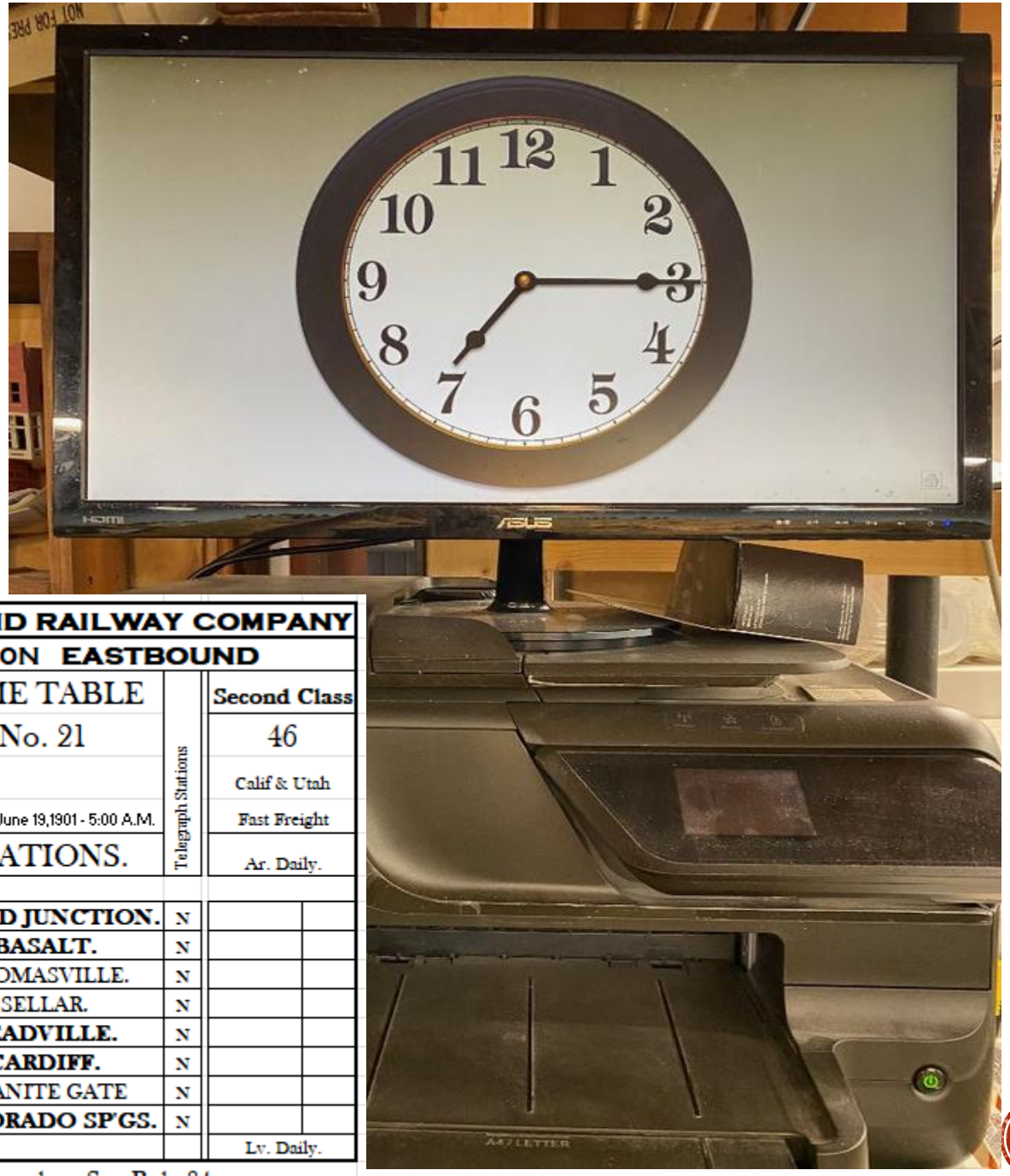
JMRI OPERATIONSPRO™

- Two-page CM Ops Guidelines
- "Slow" Steam Locomotive Instruction cards:
  - Whistle rules per CM Rules #11, 1892
  - Standard operating procedures
  - Soundtraxx function mapping
  - How to start a steam locomotive…
  - Locomotive Servicing Standards & Times



3:1 Fast-Clock

- Limited introduction (slowly) into TT&TO concept
- Time-Table limited to the passenger train(s) and thru freight(s) only



COLORADO MIDLAND RAILWAY COMPANY

SECOND DIVISION WESTBOUND

TIME TABLE No. 21 — In Effect June 19,1901 - 5:00 A.M.

First Class No. 3 "The Ute" Ar. Daily.		From Colo Spgs Miles	Coal and Water Stations	STATIONS.	Telegraph Stations	Second Class 45 Calif & Utah Fast Freight Ar. Daily.	
			W C	**COLORADO SP'GS.**	N		
Lv 10:32	AM	119.3		GRANITE GATE	N		
10:45		217.9	W C	**CARDIFF.**	N		
10:58		135.5	W C	**LEADVILLE.**	N		
11:18		166.2	W C	SELLAR.	N		
11:39		177.7	W	THOMASVILLE.	N		
12:01		185.3	W C	**BASALT.**	N		
12:25		310.4	W C	**GRAND JUNCTION.**	N		
Lv. Daily.						Lv. Daily.	

COLORADO MIDLAND RAILWAY COMPANY

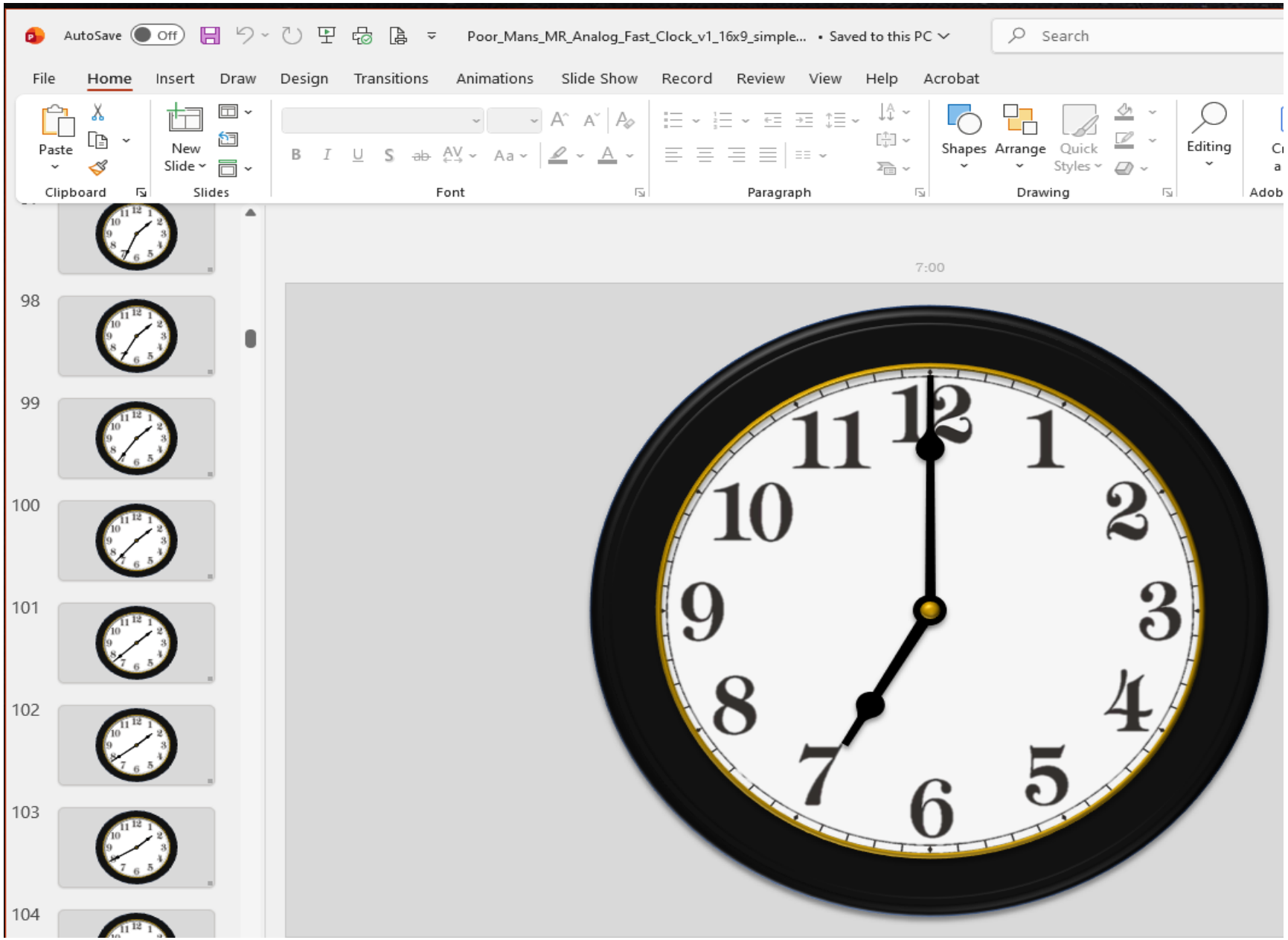
SECOND DIVISION EASTBOUND

TIME TABLE No. 21 — In Effect June 19,1901 - 5:00 A.M.

First Class No. 6 "The Coyote" Ar. Daily.		From Colo Spgs Miles	Coal and Water Stations	STATIONS.	Telegraph Stations	Second Class 46 Calif & Utah Fast Freight Ar. Daily.	
Lv 8:05	AM	310.4	W C	**GRAND JUNCTION.**	N		
8:22		185.3	W C	**BASALT.**	N		
8:44		177.7	W	THOMASVILLE.	N		
9:10		166.2	W C	SELLAR.	N		
9:27		135.5	W C	**LEADVILLE.**	N		
9:55		217.9	W C	**CARDIFF.**	N		
10:10		119.3		GRANITE GATE	N		
			W C	**COLORADO SP'GS.**	N		
Lv. Daily.						Lv. Daily.	

All Eastbound Trains have Absolute Right of Track over Westbound Trains of the same class. See Rule 84.

- Clock is a Microsoft PowerPoint slide show (free)
- 720 individual slides displaying unique hour and minute hands for each minute of a full 12-hour cycle.
- 3:1 fast clock = new slide every 20 seonds




ASPEN LUMBER CO.
COLORADO MIDLAND RAILWAY COMPANY
SECOND DIVISION WESTBOUND
TIME TABLE
No. 21
STATIONS.
COLORADO MIDLAND RAILWAY COMPANY
SECOND DIVISION EASTBOUND
TIME TABLE
No. 21
STATIONS.
COLORADO MIDLAND RAILWAY
TRAIN REGISTER
Station
Date
19
Train #
Arrival
Departure
Eng #
Destination