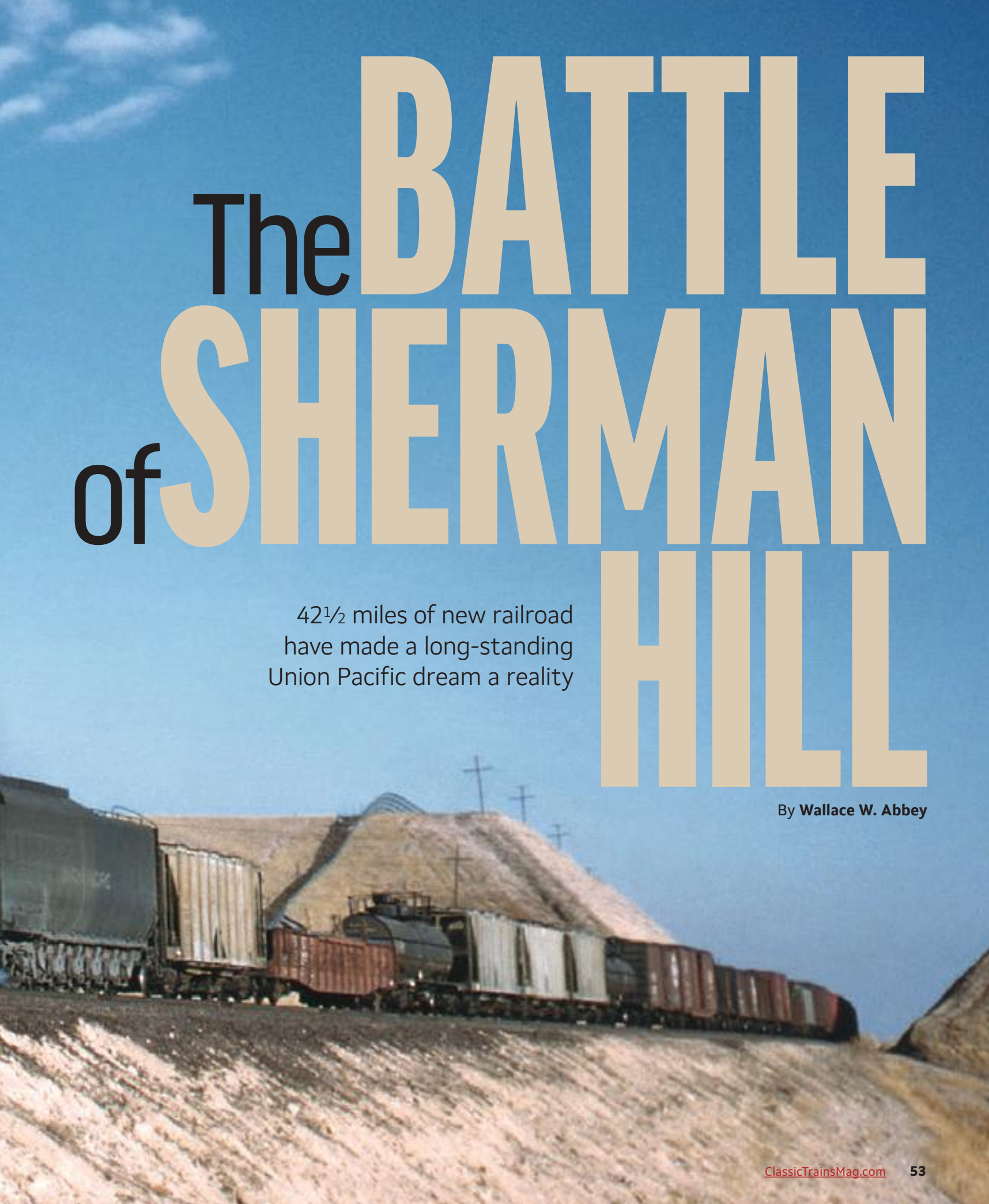
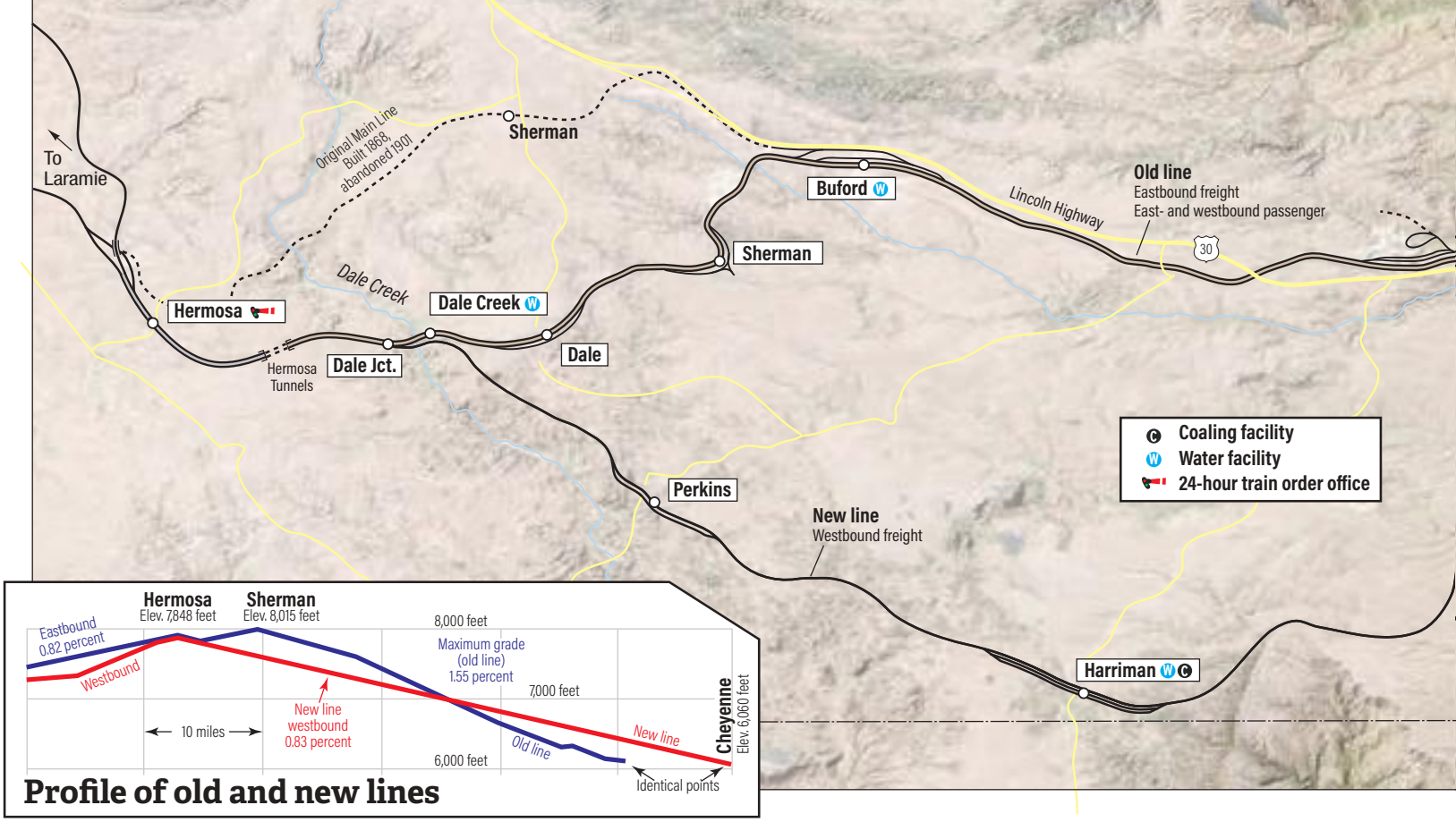
Big Boy 4022 climbs windswept Sherman Hill on the new line, officially completed on May 12, 1953, with a freight extra out of Cheyenne in 1958.
Stan Kistler

The BATTLE of SHERMAN HILL

42½ miles of new railroad have made a long-standing Union Pacific dream a reality

By **Wallace W. Abbey**





NEW LINE BY THE NUMBERS

TOTAL LENGTH
42½ MILES

MAXIMUM GRADE
0.82 PERCENT

HIGHEST FILL
157 FEET

DEEPEST CUT
110 FEET

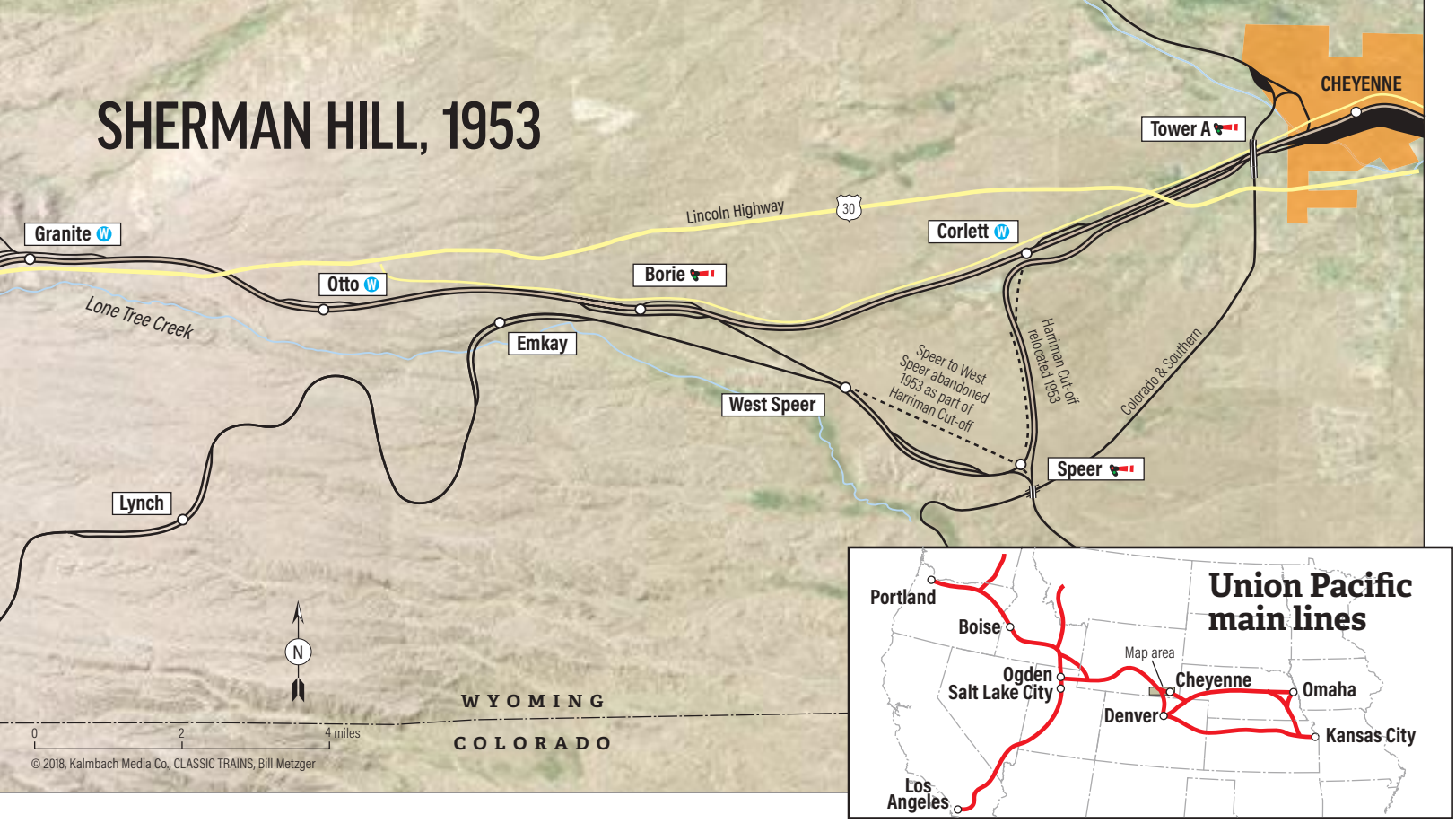
RUNNING TIME SAVED
15 MINUTES

Since the first surveyors ventured into the uplands west of Cheyenne in 1865, the Union Pacific has been waging intermittent war against the geography of southeastern Wyoming. Several times it has skirmished among the hills and along the creeks, trying to win a grade through the Laramie Mountains that best combined the virtues of economical construction and efficient operation. Each sortie with the construction tools of the day has brought improvements, but until this year of 1953 Sherman Hill has stood formidably in the way.

The 8,014-foot summit at Sherman has been the highest point on the main line and the toughest to reach with a heavy train. But now today's construction forces — using earth-moving machinery that would astound and probably frighten the shovel-and-wheelbarrow laborers who built the Union Pacific through this country — have put a new battle line around and below Sherman. They have whittled significant percentages off the ruling grade with the largest line-change project in UP history.

The new line, which is 42½ miles long, begins about a mile west of Tower A at Cheyenne, where the long freights come out of the yard with the exhausts of their mammoth articulateds — 2-8-8-0s, 4-6-6-4 Challengers, and the mighty 4-8-8-4 Big Boys — exploding in a frightful cannonade. It meanders in sweeping

SHERMAN HILL, 1953



Extensive cutting and filling help keep the grade on UP's new line to 0.82 percent. Big Boy 4017 works west through one of the cuts in 1954. *Stan Kistler*

loops through the bald hills of Laramie County, drops to within a quarter mile of the Colorado state line, and then cuts through solid rock and decomposed granite to Dale — formerly Dale Creek — where it rejoins the former alignment.

The meandering is for a definite reason. Added length — 9 miles of it — compared to the old line means a reduced ruling grade. On the new line it's 0.82 percent; on the old, 1.55. The difference is money in the bank for the UP in the form of reduced operating costs.

Beginning in spring 1951, surveying parties explored the Laramie Mountains to find a new route that would chop the top off the only westbound grade of more than 0.82 percent between Omaha and Ogden. The bulldozers, rock shovels, and scrapers of Morrison-Knudsen Construction Co. began revising the landscape on February 18, 1952. The men and their machines dug, scraped, and blasted. They threw a fill 112 feet high across Sand Creek, one 157 feet high across Texas Creek, and dug a cut 110 feet deep through solid rock. They handled more than 7 million cubic yards of earth and rock.

Almost exactly a year from the day grading started — and six months ahead of schedule — the last rail went into place.

The $16 million line change is as modern as current practices can make it. New 133-pound rail is spiked to treated ties. Passing tracks 7,200 feet long named for Morrison-Knudsen (Emkay), UP Operating Vice-President Perry J. Lynch, UP Chairman E. Roland Harriman, and UP Chief Engineer William C. Perkins have No. 14 turnouts. Cuts are 40 feet wide at the bottom. Steam locomotives can get coal and water at Harriman. Trains move under centralized traffic control.

The new line around Sherman Hill doesn't mean the old route will be abandoned. Eastbound freights and east- and westbound passenger trains will continue to go that way. Westbound freights will take the new line, which is engineered to reduce running time 15 minutes even though it is 9 miles longer.

The idea of having no grade on its westbound track greater than 0.82 percent has long been a fond one to the Union Pacific — since before there were the tools to do the job. But since May 12, 1953, when the latest assault on the Laramie Mountains was officially completed and the newest Sherman Hill line was opened for business, that dream has been a reality.

WALLACE W. ABBEY, a prolific rail journalist, author, and photographer, was a member of the TRAINS staff during 1950–54, then moved on to positions in railroad public relations. He died in 2014.

In a late-1950s view from the west end of Cheyenne, a GE gas-turbine-electric sets out for the new line over Sherman Hill while a Big Boy and turbine bring a train in off the hill and EMD diesel-electrics approach with another eastbound.
Bill Caflisch, Helen Caflisch collection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"WILD MARY" The Western Maryland's colorful nickname owed at least as much to the road's rugged territory as to its initials. WM's Elkins Division southwest of Cumberland, Md., encompassed the 3-percent grades and 16-degree curves of Blackwater Canyon. That's what's ahead for this coal train at Montrose, W.Va.; the two RS3s ahead of the caboose are being tested on the line, ruled for now by 2-8-0s. *George C. Corey*

FEATHER RIVER ROUTE At the opposite end of George Gould's would-be transcontinental empire, the Western Pacific faced obstacles, too — lonely mountains in Utah, and the Sierras in California. In the case of the latter, WP found a relatively easy course by following the Feather River, but the going was still tough. In 1950, a 2-8-8-2 on an eastbound holds a siding in the canyon to meet FTs with Bay Area freight. *Allan Fraser*