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SPECIAL EDITION NO. 22

Steam's LOST Empire

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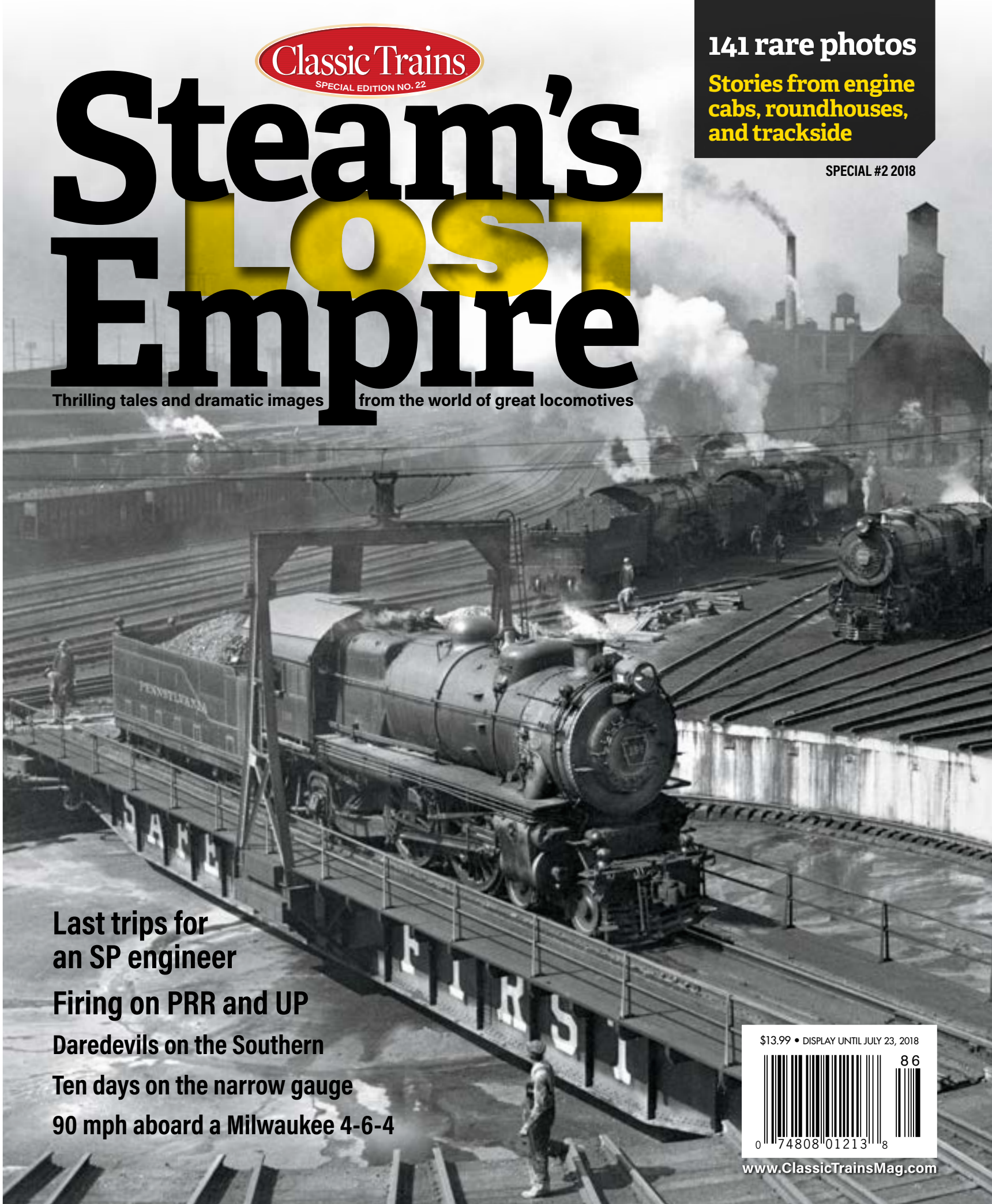

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Steam's Lost Empire • CLASSIC TRAINS SPECIAL EDITION NO. 22 • 2018

Illinois Central 1173, a Pacific built in 1918, wheels the Florida-Chicago *Seminole* somewhere on the road's line to Birmingham, Ala., in about 1948. An early adopter of diesels for its top passenger trains, IC kept some steam active in freight service until April 1960.
Barney L. Stone, Krambles-Peterson Archive

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Steam's LOST Empire

ON THE COVER

Pennsylvania Railroad E6s Atlantic No. 198 rides the turntable at the 46th Street engine terminal, Philadelphia, in the late 1930s. In 1934, the facility dispatched an average of 175 steam locomotives each day.
Harold M. Lambert

CONTENTS

A vanished world

Those of us who grew up after 1960 and who love steam locomotives are grateful beyond words for the precious few of those magnificent machines that remain in operation. Today, it's still possible to be present as a 2-6-0 gives its all to lift three cars up a steep grade, or as a Berkshire accelerates to 60 mph on double track.

Of course, in all but a handful of places, steam is the exception to the diesel rule. With fewer than 200 steam locomotives operable now in America, it's hard to conceive of a time when more than 50,000 roamed the land day in and day out. That great army of locomotives, compelling in itself, required a physical and social infrastructure so extensive that it could be called an empire. Like so many empires throughout history, steam's did not last.

Happily for us, the grit and glory of the steam era was extensively chronicled in words, photographs, and artwork, and that's the basis for this special publication from Classic Trains. All but one of the 11 feature articles here initially appeared in Trains magazine over a period spanning from 1948 to 1977. In most cases they have been completely revised with new page designs and photos. The exception is Tom Gildersleeve's all-new account of his ten-day visit to the Rio Grande narrow gauge in March 1963, beginning on page 84. Although this was after the general fall of steam's empire, Tom found a world little changed since before the first successful diesels hit the rails.

Whether you witnessed the age of steam firsthand, or only wish you had seen it, we hope you enjoy Steam's Lost Empire.

Robert S. McGonigal

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Please Recycle This Magazine

Canadian National 4-8-4 No. 6221 pauses at Sebringville, Ontario, during a test run after being overhauled in the "Big Shop" at nearby Stratford. The date is January 8, 1959, and the Northern type is one of Stratford's last major jobs. As CN's last steam repair facility, Stratford was one of the final pieces of steam's North American empire to crumble. James A. Brown

Home-built 4-8-2 on the run

With dirty white extra flags snapping in the wind generated by its headlong rush westward, Baltimore & Ohio 4-8-2 No. 702 storms through Attica Junction, Ohio, on November 24, 1957. B&O built 40 of these class T-3 dual-service Mountains, Nos. 5555–5594, using the boilers from old Pacifics and Mikados during 1942–48. The road's general renumbering in 1956 put them into the 700 series. A diesel pioneer, B&O entrusted fast freights to 4-8-2s after other roads had vanquished steam. Frank Tatnall

Day with an SP ho

32 PHOTOS DOCUMENT THE FINAL TRIP OF VETERAN SOUTHERN PACIFIC ENGINEER BASCOM FARROW

Photo story by
WARD KIMBALL

Ever since the first fire was kindled beneath the boiler of the first locomotive, the engineer has been the symbol of all railroad men. We may have a good friend in the local station agent, the flagman may return our wave from his cupola post, but it's the gentleman in the cab we watch for — the man behind the throttle, reverse gear, and brake valves. Perhaps that's because the locomotive has ever been the trademark of railroading. Maybe the reason lies in the fact that the engineer is the one member of the crew actually handling the train — the man who slips a little sand under high drivers, then tugs back the throttle . . . the chap up on the right-hand seat as the tonnage freight works its way down into the river valley, geared to the movement of his hand on the main brake handle and the grip of brake shoes. Fortune may have cast us as file clerks or farmers or even baseball stars, but we never quite get over that desire to hold down the right-hand seat of a live, vibrant 4-8-4.

Southern Pacific's Bascom Farrow, the man who takes the leading role in this photo story, realized the ambition. First he fired a Fresno switcher; that was in 1900. One year later he was a road fireman and then, in 1907, came the right-hand side. Consolidations, 4-8-2s, articulateds, diesels: Bascom Farrow has handled them all. It's been a good life.

This year, at the age of 65, Farrow took his last trip; he was eligible for a pension, and decided that a little trout fishing and a long, well-earned rest were in order.

Accompanying him on his last runs was Ward Kimball, president of his own backyard Grizzly Flats Railroad. Ward came back with 232 negatives, shot from every conceivable location. The best of his photos, reproduced on these and the following pages, are a tribute to all who occupy the right-hand side — or ever wanted to.

WARD KIMBALL (1914–2002) was an animator for Walt Disney Studios beginning in 1934, retiring from the company in 1973. An avid railfan, he built a 3-foot-gauge railroad at his home in San Gabriel, Calif. Kimball was also a trombonist, founding the Dixieland band Firehouse Five Plus Two.

1 Bascom Farrow has his hand on the throttle of Southern Pacific class Mt-3 Mountain No. 4335, the second engine on Los Angeles–Oakland train 51, the *San Joaquin Daylight*. The veteran hogger is on the outward leg of his final trip after 48 years of service.

gger

FROM
OCTOBER
1948
TRAINS
MAGAZINE

2 A phone call from the crew dispatcher at 5:30 in the morning of May 29, 1948, brings Farrow out of a sound sleep: "Farrow, No. 51, on time, No. 4335, fireman Taylor." The engineer replies "OK," knowing he's called for the *San Joaquin Daylight* with a 4-8-2.

3 By 6:50 he's down at SP's Alhambra roundhouse, climbing into his overalls. Momentarily he has laid his freshly lighted cigar on the sloping counter in front of him.

4 It's almost 6:53 by the company clock as Farrow performs the required ritual of checking his own timepiece. The railroad is forever chained to the hands of the clock — and accuracy is synonymous with safety.

5 Grips in hand, Farrow (right) and engineer John L. Sullivan, who'll be on the first engine of 51's doubleheader, walk out to their 4-8-2s under a bright California sun. Time: 7:30.

6 Beside his locomotive, Farrow shoves his grip up onto the cab deck before starting his usual inspection of his charge.

7 Farrow carefully notes the condition of the running gear, pointing out possible defects to the engine inspector, and seeing that the automatic lubricators are full and in good operating shape. This usually takes about 15 minutes.

5

6


7

8

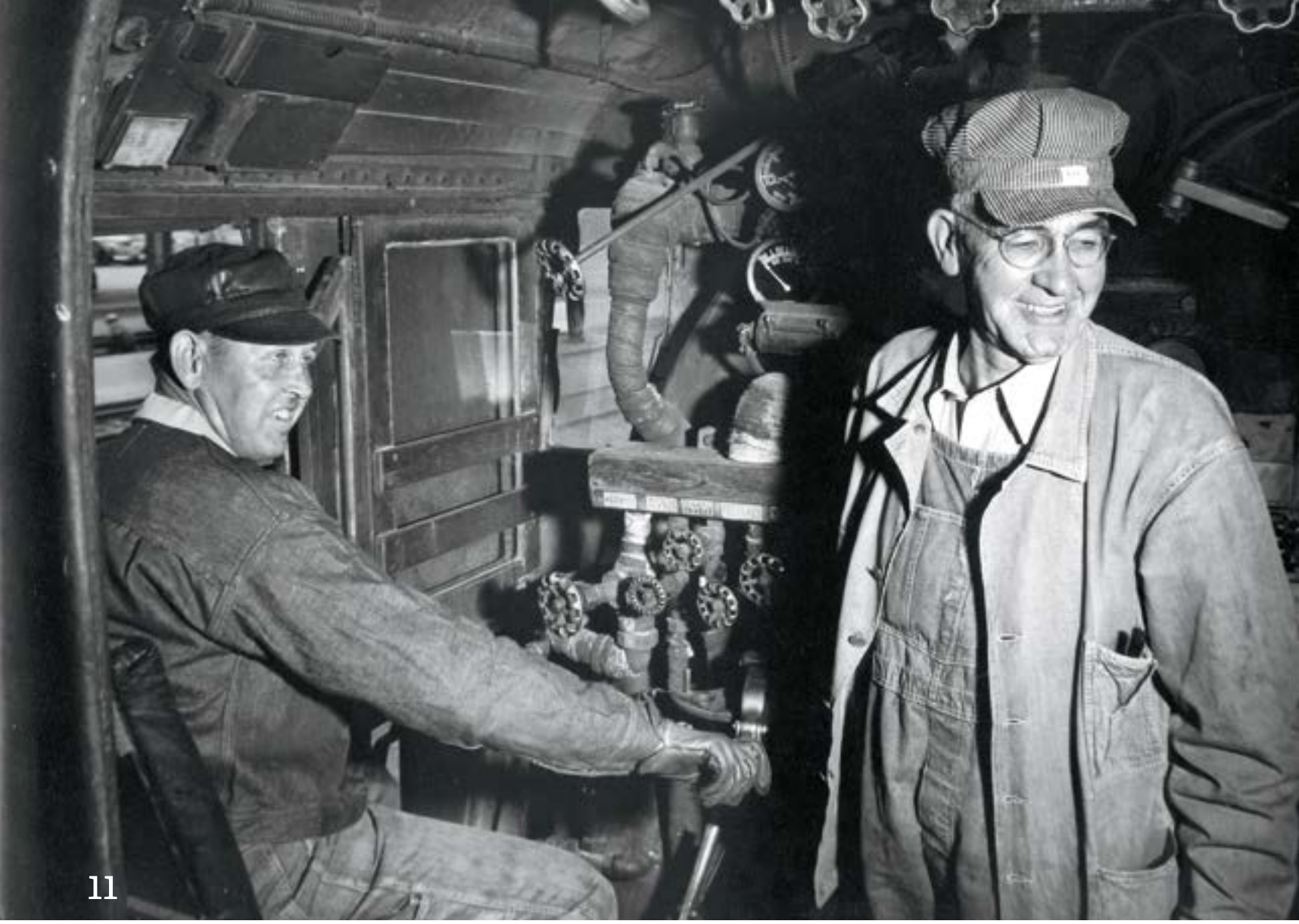
9

Bascom Farrow's bailiwick

SP Southern Pacific
ATSF Santa Fe
SP (ATSF) ATSF rights on SP

Not all lines shown

10



11

8 All engineers are required by rules to give the firebox an inspection for possible defects in bolts, plugs, etc.

9 Having backed his engine over from the Alhambra roundhouse to the Los Angeles Union Station throat, Farrow waits for a Union Pacific train to clear. It feels good to lean on the armrest with a husky 4-8-2 under you — good to be a railroader working into the thick of heavy traffic.

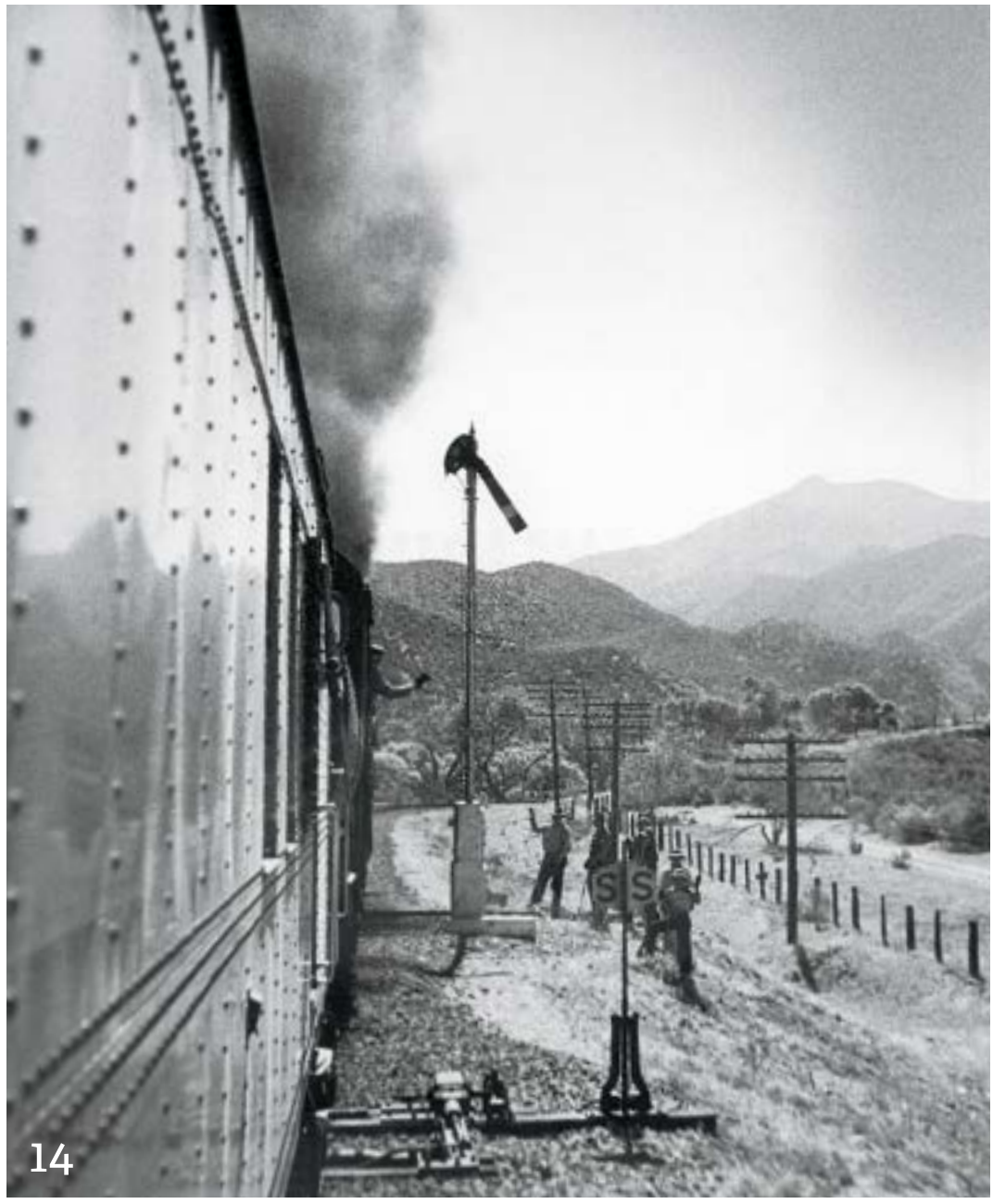
10 Farrow compares watches with conductor Ed Lander while the *San Joaquin Daylight* loads on Union Station track 3. All crewmen involved with the train's operation must have their watches correct to the second.

11 Bascom Farrow and his fireman, Robert T. Taylor, share a light moment in the cab while awaiting departure time.

12 Highball! It's 8:25. Farrow shoves the reverse lever forward, then waits for the helper ahead to start moving before he opens his throttle. "You just have to 'feel' what he's doing up there," the veteran hogger says.

12

13



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13 By 9:43, train 51 is canting to a curve in Soledad Canyon, rolling 30 mph with both 4-8-2s wide open. The helper engine ahead of Farrow's is dressed in SP's red-orange-black *Daylight* colors.

14 Farrow waves a friendly greeting to track laborers near Lang. And he says with a smile, "I see a few pretty girls now and then." His fireman shouts across the cab: "Where, on the boiler?" And Farrow says, "No, in Bakersfield!"

15 North of Palmdale (west by timetable direction), Farrow is at his post in the cab, making 65 mph. As the second engine of a double-header, 4335 carries blanks in its train indicator boxes.

16 The *San Joaquin Daylight* makes its first stop at Lancaster "on the advertised" at 10:37 and takes water. This is the Mojave Desert, hence the DON'T WASTE WATER lettering on the spout. Farrow takes advantage of the stop to look around his engine.

17 Running the engine is just one job. Farrow must also pick up orders and always keep in mind the schedules of other trains. He catches this set of orders at Mojave on the fly, since his engine will be 500 feet beyond the station when the train comes to a stop.

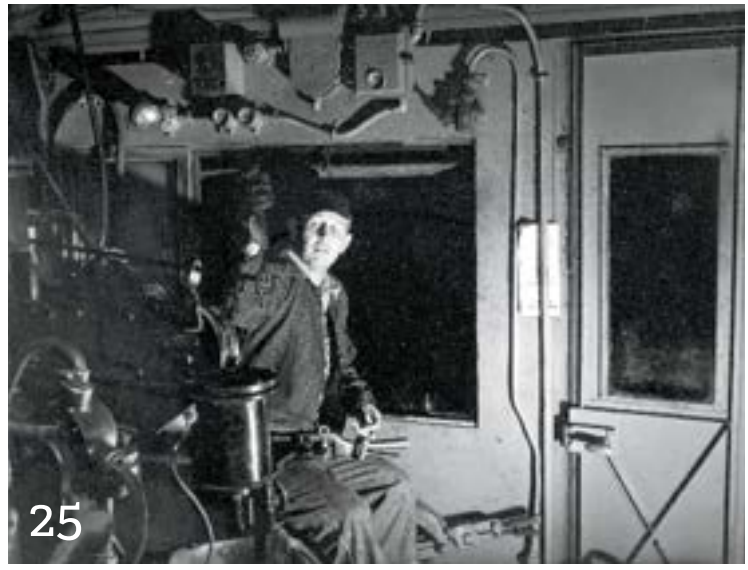
18 In a view from the tender of Farrow's engine, he looks ahead from the cab as the train leaves the desert floor and begins the climb from Mojave to Tehachapi summit.

18

19 After they arrive in Bakersfield, both engineers fill out work reports on their locomotives. They note any necessary repairs that must be made or trouble that developed en route.

20 Even on an oil-burner, a 4½-hour trip requires a good scrub-down afterwards. This photo shows why the boys call Farrow "Curly."

21 With cap and tie on, Farrow goes into Mike's Union Lunch, famous among railroaders as having the best beef stew on the division. Says Mike to Farrow on his last run: "Curly, eat all the T-bone you want — it's on the house." Then Farrow retires to his hotel for an evening of rest before the run back to L.A.



22 The callboy comes to the rooming house at 1 a.m. on May 30 to have Farrow sign the book for train 60, the *West Coast* from Portland and Sacramento, due out of Bakersfield at 3:15.

23 For his very last run, Farrow gets a 4-8-8-2 cab-forward, whose boiler jacket glistens in the light rain. Coupled ahead of engine 4246 is a 2-8-0 that will assist the heavy train to Tehachapi summit.

24 It's all business now as Farrow wraps a gauntleted hand around his 4-8-8-2's ceiling-suspended throttle and shifts No. 60 into a gentle roll out of Bakersfield.

25 "Clear board!" Fireman Taylor raises a hand as he calls a signal across 4246's cab. The first crewman to spot a signal ahead calls out its indication; the other man acknowledges by repeating it.

26 By 5:35 a.m. the black of a wet night is giving way to dawn as the *West Coast* comes into Mojave. This is the view that Farrow gets as he brakes his engine down to 15 mph to cross over from double to single track. Up ahead the yards look still and cool; the town's street lights still burn through the semi-darkness of dawn.

27 Farrow looks back for a highball during No. 60's 5-minute stop at Mojave while an engine inspector checks over the 4246.

28 This is Farrow's view as he looks over his all-heavyweight train rounding the big curve between Palmdale and Vincent at 6:40 a.m.

29 At Saugus, two freights are in the hole for the *West Coast* to pass. Their crews are out to wish Farrow well on his last few miles at the throttle.

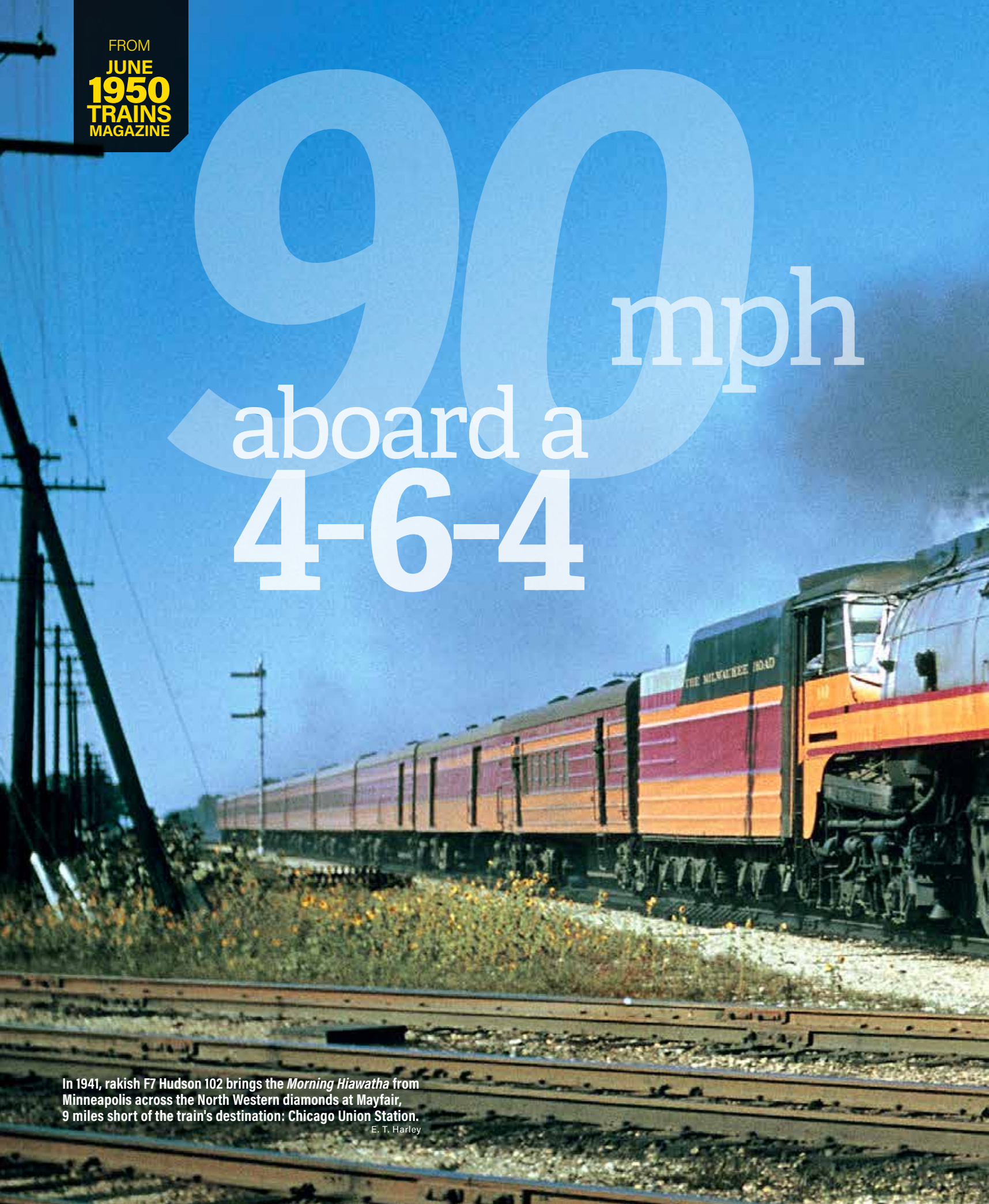
30 Congratulations! Into Los Angeles, end of today's run and the final run of a lifetime spent in SP engine service. Family members and close friends reach up to clasp Farrow's hand. It's a proud day.

31 That evening, at a dinner party in Farrow's honor, several retired engineers present him with gifts.

32 Ah, retirement. Farrow puts on an old hat and a sport shirt, then does a little digging in the garden or some work on his fishing equipment. He likes trout fishing and plans to do a lot of it up at his mountain cabin. But you can bet your rod and reel he won't stay up there all the time — he'll be down at the Alhambra roundhouse sooner or later, "looking 'em over" and talking to old friends.

FROM
JUNE
1950
TRAINS
MAGAZINE

90 mph aboard a 4-6-4

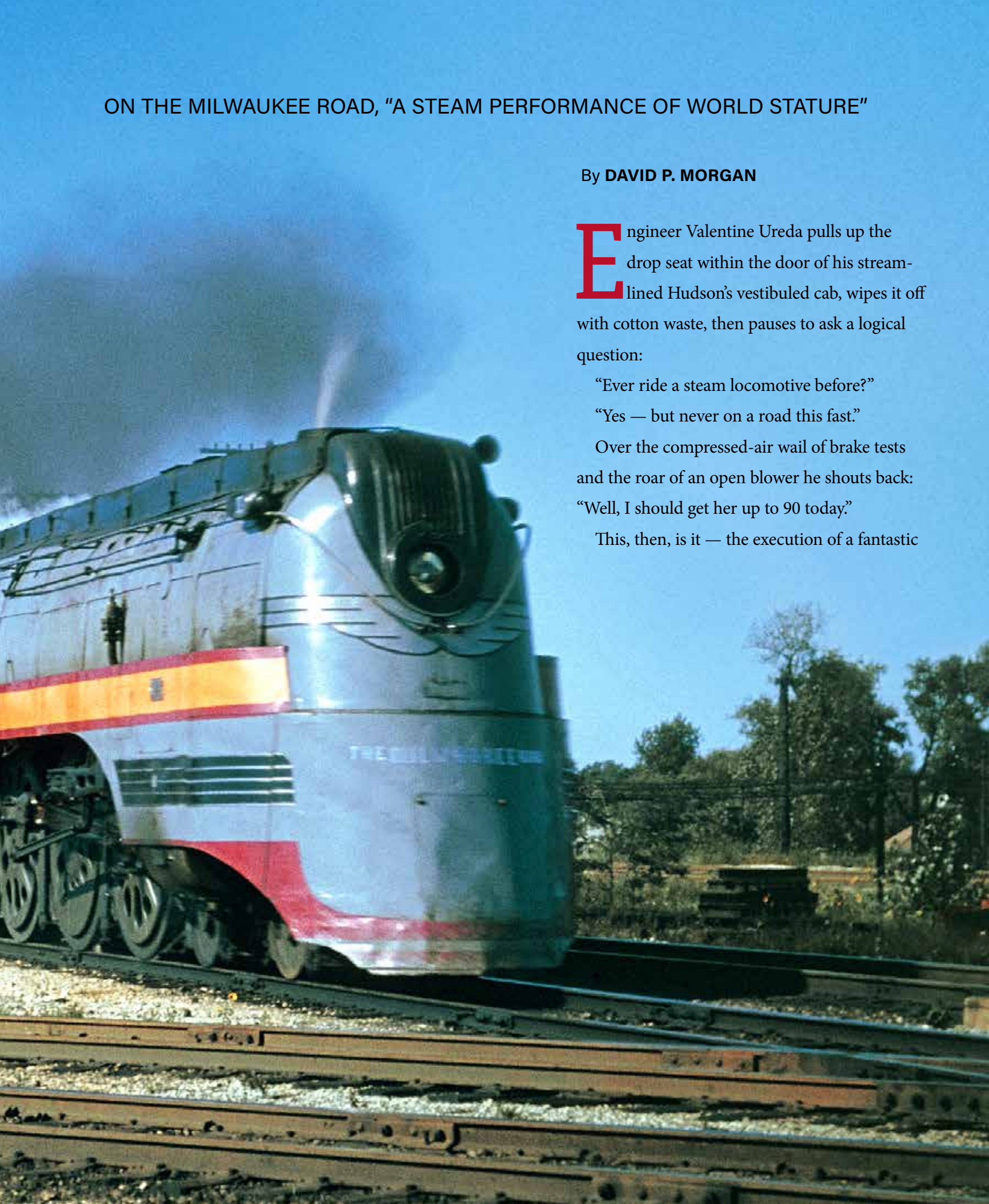


In 1941, rakish F7 Hudson 102 brings the *Morning Hiawatha* from Minneapolis across the North Western diamonds at Mayfair, 9 miles short of the train's destination: Chicago Union Station.

E. T. Harley

ON THE MILWAUKEE ROAD, "A STEAM PERFORMANCE OF WORLD STATURE"

By **DAVID P. MORGAN**



Engineer Valentine Ureda pulls up the drop seat within the door of his streamlined Hudson's vestibuled cab, wipes it off with cotton waste, then pauses to ask a logical question:

"Ever ride a steam locomotive before?"

"Yes — but never on a road this fast."

Over the compressed-air wail of brake tests and the roar of an open blower he shouts back: "Well, I should get her up to 90 today."

This, then, is it — the execution of a fantastic

F6 Hudson 127 flies north with Chicago-Madison train 23 near Rondout, Ill., on September 14, 1948. This engine (at the time numbered 6402) whisked a pre-*Hiawatha* test train the 85 miles from Chicago to Milwaukee in 67½ minutes.
C. H. Kerrigan

hope that has lived with you from the summer morn in 1934 when Chicago, Milwaukee, St. Paul & Pacific standard F6 Hudson No. 6402 averaged 75.5 mph on a stunt run out of Chicago to Milwaukee — a run that streamlined Atlantics came to emulate with oddly styled trains called *Hiawathas*. Oh yes, it took time to think of the Milwaukee Road in the same high-speed context that has seemingly always been the monopoly of the easterners, the Central and the Pennsy and the Reading. It took time to realize that this big midwestern granger road, with its bi-polar electrics and orange colors, was setting up sustained speed steam performance records of world stature. And it took time to believe that Longfellow had named a streamliner as well as an Indian in his poem.

Time, itself, has also wrought change. Instead of a *Hiawatha* behind the 12-wheel fluted tank of your Alco 4-6-4, there is just nameless No. 46 — an 80-minute 4 p.m. express to Chicago (85 miles east by the timetable) with through cars from Madison. Ahead of you there is no longer the exciting uncertainty of speeds in excess of 120 mph; the enforced limit on the *Hiawathas* now is 100, and 90 for all other first-class trains like 46. Also, two of the road's famous *Hiawatha* locomotives now await uncertain disposition at the West Milwaukee Shops: class A Atlantic No. 3 is gradually being dismembered to supply parts for her three sisters, and F7 Hudson No. 100 has bad boiler aches.

OUT OF MILWAUKEE

In the cab of Hudson 105, fireman Wallace Edwards cracks the butterfly doors for a look at his fire, gives the stoker valves a fine adjustment, then continues his watch to the rear of the train for the signal to depart.

"Highball!"

Brake shoes release their grip on the high-drivered 4-6-4, her air horn bellows twice to bring down the crossing gates on the curve at 2nd and Clybourn streets, and Ureda notches back on the throttle. The time is 4:07 p.m., the consist is one old baggage car, five streamlined coaches, and a parlor car.

No. 105 stalks under the yellow board atop the signal bridge with her invisible stack making big talk on the grade and curves out of downtown Milwaukee. On the Menonomee River bridge, 84-inch drivers rebel against the force of too much high-pressure steam and slip wildly until Ureda eases off.

Now the speedometer needle has left 20

In the cab of Hudson 105, the fireman cracks the butterfly doors for a look at his fire, gives the stoker valves a fine adjustment, then continues his watch toward the rear of the train for the signal to depart.

"Highball!"

and is swinging upward to 30 . . . 35 . . . 38. A Chicago-bound freight out of Muskego Yard shoulders close by, waiting at the switch behind S2 4-8-4 No. 214 until No. 46 clears. The 4-6-4 bangs over Washington Street interlocking, where Chicago & North Western's line from Madison crosses the Milwaukee's hottest route, and 2 miles later is hitting 45 within sight of C&NW's Chase Avenue Yard and engine terminal.

Abruptly Ureda shoves in his throttle and begins working air. A red Mars light is flashing in the distance on the nose of a four-unit FT diesel freight locomotive standing on the westbound main, and its fireman is on the ground with a fusee. No. 46 halts while the crew learns that the freight train has broken in two and may have a derailed car fouling the eastbound track. Ureda acknowledges the warning and kicks off his brakes.

The 4-6-4 is angry at this sudden stop on the grade, and has to be coaxed into acceleration. Ureda knows he is unavoidably 10 minutes or more off the timecard, however, so he can't spare the rod and spoil the passengers. With her thin smoke trail dusting the gravestones of St. Adalbert's Cemetery, No. 105 goes under the Wisconsin Electric Power Co.'s belt line bridge at Powertown Junction at 45 mph and is topping a mile a minute at Lake tower, summit of the grade out of Milwaukee.

Fireman Edwards ducks away from his streamstyled cab window as the westbound *Olympian Hiawatha* rams past in a guttural roar of diesels and a slipstream of coaches and sleepers for the West Coast. Meantime the cab tied onto the tail of this bounding 4-6-4 has assumed a machine-gun vibration: no punishing jolts or jars at this 60- to 75-mph gait, but a rapid clatter made up more of noise than of movement. It is also infinitely more worthwhile than resting behind the windshield of a diesel, you think.

SLOWDOWN AT STURTEVANT

The magic needle is comfortably over the hump at 85 as you approach Sturtevant, junction for a branch east to Racine and the "Southwestern" main line to Kansas City. Once more Ureda must choke off speed because train 23 is making a station stop on the westbound track; otherwise there would be the danger of an indiscreet patron walking across the main at the rear of 23's last car, right into the blur and suction of the Hudson's drivers. The speedometer falls back to a crawling 20 mph.

Within less than 2 miles, No. 105 is running 60 per. The speed is progressively 83 at Truesdell, 88 at Russell, then finally (as Ureda had promised) a cool 90. You wonder now how many times you have traveled the Milwaukee Road at that speed, casually reading a magazine or paper in the coaches, chatting with friends, or dining on a roadbed which won't spill a full glass of water. And you consider the vast gulf between the calm of the coaches and the life aboard engine 105. Up here men are at work keeping a Hudson hot and taking her home to Chicago at 90 on the nose.

Ironically, perhaps, the 4-6-4 threatens to overshadow her two masters in your mind: the way her tank shoves and bounces behind your seat in the cab; the seasick liquid level in the water glass; the steady green eye from the cab-signal box that drops through yellow, flashes red twice, and returns to green when passing each lineside semaphore.

No. 105 grooves the crossing of the Elgin, Joliet & Eastern at Rondout at 90 with Ureda shouting locomotive lore in your ear:

"She takes a long time to hit 90 after those two delays on the grade, but she holds right up to it after that."

We're in Chicago suburban territory now. The sun is out at Morton Grove, cutting through the gloom of a dull, cold March afternoon. Speed stays steady at 90 save for a brief drop to 85 at Edgebrook where a signal shows yellow for an instant, then blinks green at your oncoming Hudson. From your drop seat behind the engineer you're looking down more than 40 feet of running board, watching superelevated curves and junctions and suburban stations come racing toward you instead of you toward them. Once or twice the 415,000-pound Alco sways wide, then quickly recovers posture.

Chicago ahead: 80 over the C&NW diamonds at Mayfair, 75 into Healy, then on down, down, down, to 16 mph at Western Avenue while a North Western commuter train barks out behind a Pacific. No. 105 walks under the tracks leading to C&NW's terminal, curves hard to the right alongside the Chicago River, and strides into the dark Milwaukee Road side of Union Station. Ureda brings the train to a saunter, then to a stop at 5:27 p.m. No. 46 has made its 80-minute running time in the face of one stop and two unforeseen speed reductions.

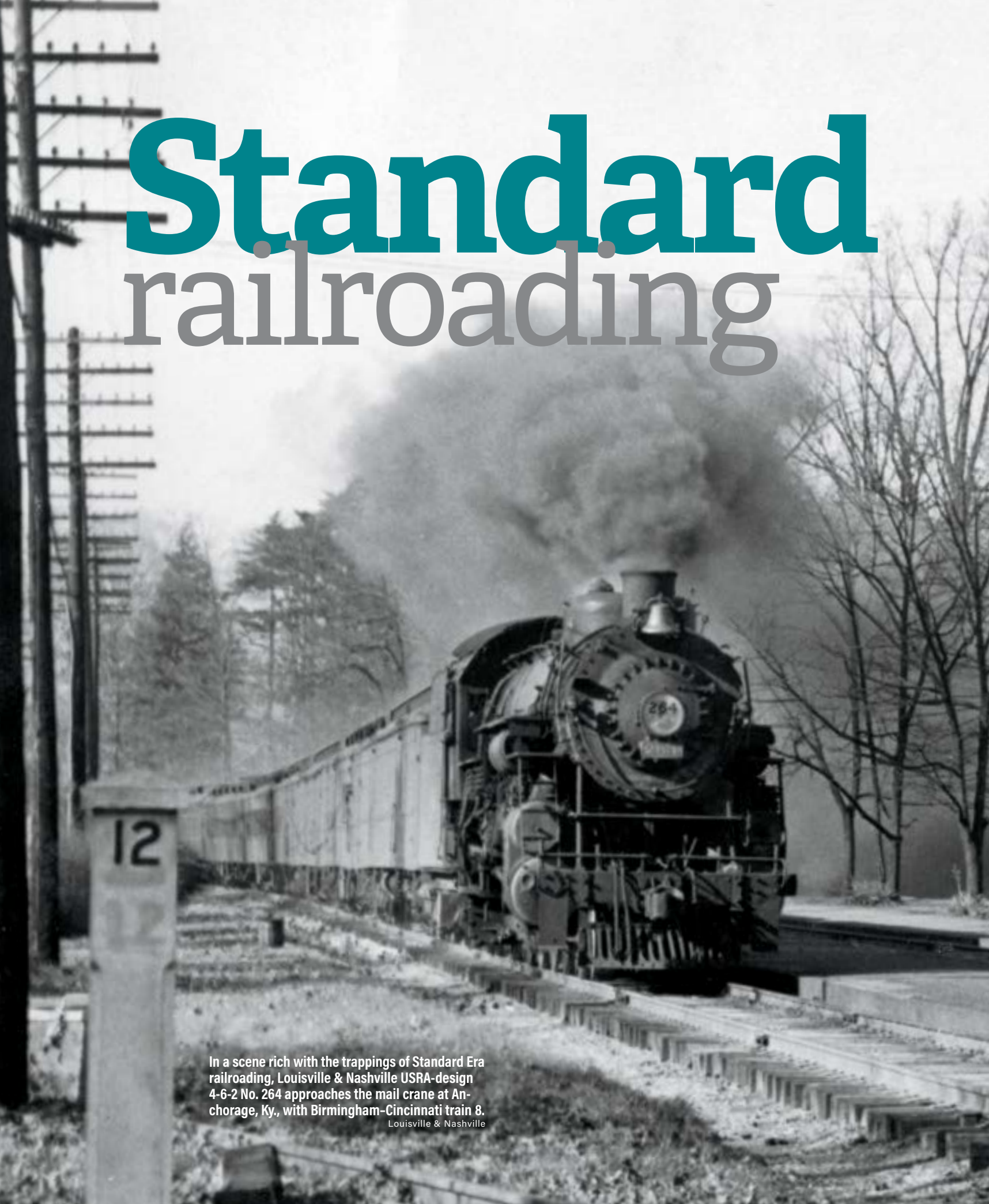
You climb down the cab ladder, pause beside 105's Walschaerts gear, then walk on. ■

DAVID P. MORGAN joined the Trains *staff in 1948, became the magazine's editor in '53, and retired from that position (as well as publisher) in 1987. He's pictured at left beside a CMStP&P class A 4-4-2 on his first visit to Milwaukee, in 1947. Morgan died in 1990 at age 62.*

600 tons for a 2-8-8-2

Northern Pacific's branch line from St. Regis, Mont., to Wallace, Idaho, included Lookout Pass, a crossing of the Bitterroot Mountains whose steep grades limited compound 2-8-8-2s to a mere 600 tons. Class Z-3 No. 4020 (Alco, 1920) has just seven cars behind her tank as she fights up the 4 percent climb on the curved trestle just east of Dorsey, Idaho, on September 17, 1953 — not long before diesels arrived. Henry R. Griffiths Jr., Jim Griffiths collection

Standard railroading

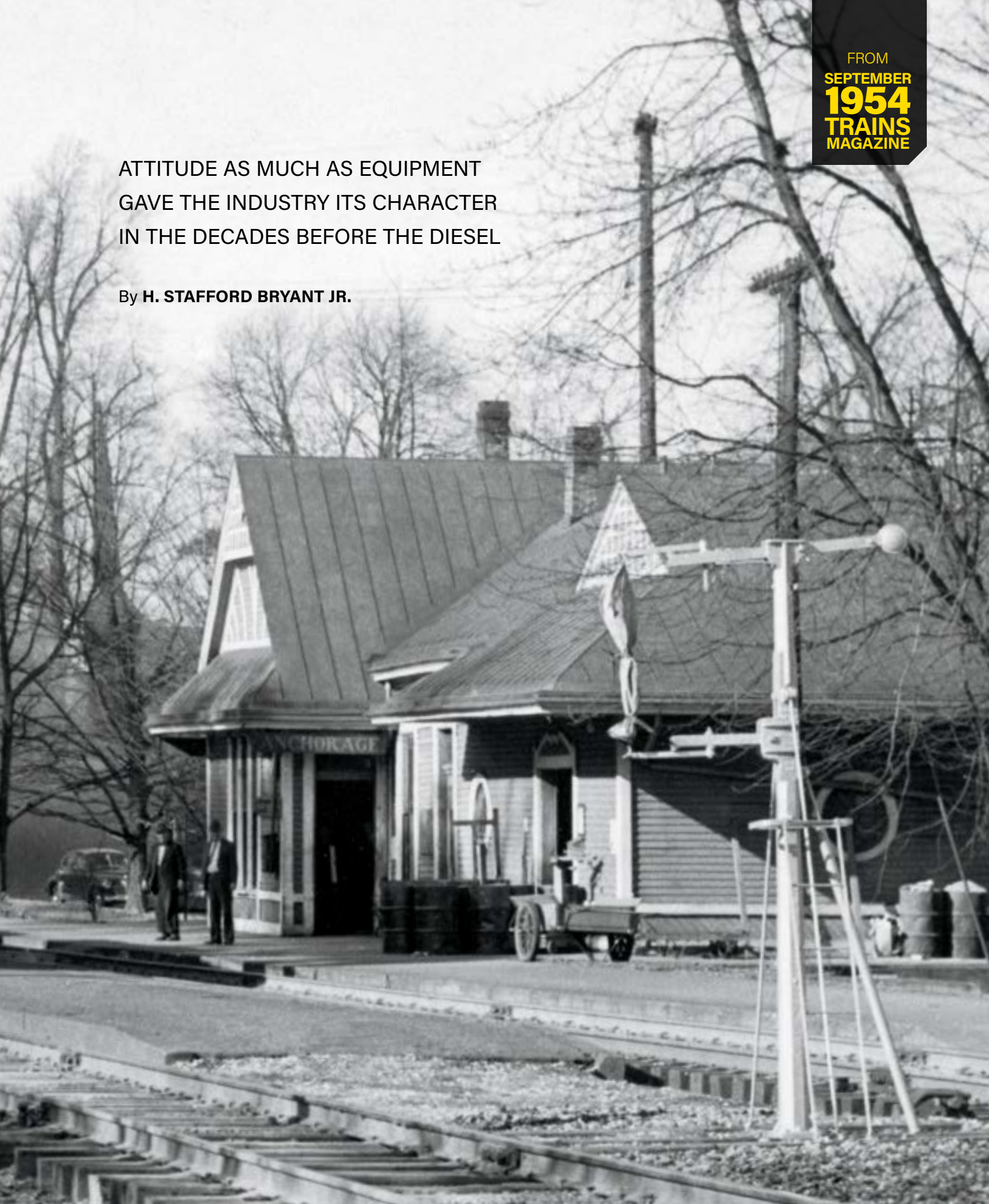


In a scene rich with the trappings of Standard Era railroading, Louisville & Nashville USRA-design 4-6-2 No. 264 approaches the mail crane at Anchorage, Ky., with Birmingham-Cincinnati train 8.
Louisville & Nashville

FROM
SEPTEMBER
1954
TRAINS
MAGAZINE

ATTITUDE AS MUCH AS EQUIPMENT GAVE THE INDUSTRY ITS CHARACTER IN THE DECADES BEFORE THE DIESEL

By **H. STAFFORD BRYANT JR.**



It is a curious fact about the Standard Era of railroading — those relatively secure and complacent years from about 1910 through the late '20s — that some aspects of it were far less standardized than they are in today's practice.

Take the matter of motive power. Today, as diesel locomotive models are produced in the thousands, a single model — an EMD GP7, say — may handle varied assignments on dozens of different carriers. In the Standard Era each of the carriers used a steam locomotive of its own design planned especially for a particular job (but frequently forced into other kinds of work as well).

The comparison extends to the *manner* of motive power operation. Myriad different operating problems — caused by weather, terrain, type of traffic — make for myriad different operating solutions with steam power, which is fairly reluctant to adapt and needs a clever operator to do its thinking.

But diesels minimize the different problems by a power supply system that can meet an amazing variety of requirements, by gearing, and by the number of locomotive units used — all of which relieves the engineer of a lot of responsibility. This is to say that the diesels of today make for a degree of standardization of the human element in train operation that the steam era never knew. Ask a train crew to get a freight over a mountain division with a high-wheeled 4-6-2 — as could happen in the Standard Era — and you ask for an exceedingly expert and exceedingly *un*standardized performance.

Why, then, are those paradoxical railroad times in the early part of the 20th century sometimes called the Standard Era?

Perhaps the term originally came from the Pennsylvania Railroad's slogan of those years: "The Standard Railroad of the World." Admittedly, the term was supposed to mean more that Pennsy set standards for railway practices generally (which was only partially true) than that it was highly standardized in its own practices (which was very largely true).

And it was certainly the Pennsylvania, together with its neighbor and competitor, the New York Central, that most definitively set the tone of Standard Railroading. Because of their unparalleled volume of operation, it's not surprising that the two roads did, within themselves, evolve their practices and tools to close patterns. In the decade before World War II both roads had recovered from an orgy of experimentation and development. They had rounded out the celebrated family resemblances of their locomotives and passenger equipment and were evolving standard types for each. The names of the two carriers were practically household words. Their practices were naturally influential, and there is little doubt that they were important factors in making the Standard Era just that.

SUMMER SOLSTICE OF NORMALCY

In essence, Standard Railroading was first an attitude. It reflected relatively secure if expanding economies in the nation's business establishment generally, and in its railroads specifically. Historians Charles A. and Mary R. Beard called the '20s part of it the "summer solstice of Normalcy."

For the railroads the years were for the most part peculiarly favorable ones. The carriers had completed their basic right-of-way plants and had developed efficient methods of freight and passenger interchange. Advances in motive power and rolling stock allowed a big-time, long-train, heavy-tonnage style of operations that made for big profits. Most important, it was a time before automobiles, trucks, buses, and airplanes had become formidable opposition.

Pennsy's *Broadway Limited* stands at Englewood station, Chicago, first stop on its dash to New York, in the 1930s. Pacific 5351 carries the Pullman flyer's name below its keystone numberplate.
Howard Christiansen

The Standard Era saw no acute need for economies of operation, and so progressive and experimental practices were relatively scarce. There would be some experimenting during the years, but this would be motivated more by the curiosity and energy of individuals than by the pressures of competition. The big news of the years was mostly in plant improvements: a line relocation here, a new branch there, an electrification somewhere else. Occasionally something mechanically interesting happened. This, though, was the trend: For every Triplex Mallet there would be hundreds of USRA light 2-8-2s, and for every McKeen motor car, thousands of standard Pullmans.

Possibly it is this very same standard 12-section, 1-drawing-room Pullman car that most surely symbolizes the Standard Era. Here was an impeccable piece of rolling stock, designed with a formalism worthy of the early Italian Renaissance architecture, painted a somber patrician shade of dark green, and given a name like as not having some impressive sound such as *L. Q. C. Lamar* of *Crescent Limited* fame or *Wallenpaupac Country Club*. Not only were fleets of these Pullmans built, but a more or less standardized American coach pattern was derived from the design. The most elegant trains in the country — the New Haven's *Merchants Limited*, the Central's *20th Century Limited*, or the Chesapeake & Ohio's *George Washington* (Imperial Salon Car and all) — all had similar coach or sleeper equipment.

Here in the standard Pullman was "the end" — the absolute esthetic and mechanical maturity. What else could there be?

Well, the mass-circulation science magazines kept hinting that there might be something else after all. And some far-sighted people who would work at companies with nouveau names such as Budd and Electro-Motive were ultimately to prove that there was no such thing as "the end," at least not on railroads.

It wasn't long after the Standard Era that the Pullman people (Pullman-*Standard*, in fact) got around to making an effective standardization of the American boxcar. Freight-car design in the '20s was in a chaotic state. Save for those gaudy, beer-toting reefers (which didn't belong to the railroads themselves anyway), just about all of the freight cars of Standard Railroading were painted a dull red or black and given a matter-of-fact lettering of reporting marks, specifications, and the railroad's name, all in Roman type. It took a far more ballyhoo-conscious era to produce the yellow Katy boxcars of the 1940s and the green Minneapolis & St. Louis ones of today. Which is to say nothing of all those interesting maps, scroll writings, box letters, and brightly colored heralds that grace the sides of many of today's otherwise undistinguished boxcars.

The *20th Century Limited*, NYC's all-Pullman flagship between New York and Chicago, ran with 4-6-4s after 1927. Green flags on Hudson 5214 indicate a following section — not uncommon for the *Century*.
Classic Trains collection

The names of the two giant eastern roads were practically household words. Their practices were naturally influential, and there is little doubt they were important factors in making the Standard Era just that.

The times were surely inherent in the advertising and publicity of the railroads. Remember the blue-plate publicity photo — that one of the latest passenger steam engine standing on a curve at the head of a long string of standard Pullmans, with the speed lines touched in by an artist? Relatively little advertising reached the magazines, and what there was of it was usually restrained. The Milwaukee Road talked politely, almost deferentially, of its new electrification, and the New York Central had a chat with writer Christopher Morley about the *Century* — a far cry from the endless, strident plugging of today.

Not surprisingly, railroad fiction had got off to a set of formulas (which lasted far beyond the standard years). The flavor of the era was authentic in the works of Harry Bedwell, "Haywire Mac," E. S. Dellinger, and Gilbert A. Lathrop. How nostalgic to think of all those inevitable student firemen, boomer brakemen, and anemic night-trick ops; of the mountain division that just never seemed to get enough sufficiently powerful locomotives; of the rawhiding officials with enticing daughters. How nostalgic, too, the railroad artists' drawings: the Mikes and Pacifics with doghouses on the tenders and deep cab shades, the portly hoggers, the youthful freight conductors chatting with female railroaders who looked like nothing so much as Gibson girls.

COMPLACENCY OF SERVICE

The end product of Standard Railroading was a brand of service that was complacent to improvements and sometimes complacent even to measuring up to the standards. Passenger trains were too often uncomfortable, slow, and way off their schedules. Air conditioning, which was commercially practicable for large installations as early as 1906, would not reach passenger trains until nearly 25 years later. While the railroads waited to develop it, passengers suffered in cars that were sooty and, in summer, unbearably hot. Coach interiors were murky and cheerless and passengers sat on seats of plush which had a way of collecting grime that got all over one's clothes. Many railroads seemed reluctant either to equip their passenger locomotives with boosters or to require their hoggers to learn smooth starts.

Freight service fared a little better. During the Standard Era railroads were slowly learning that shippers wanted service better than that offered by a system which waited for trains of maximum tonnage to gather before moving them. But it wouldn't be until the 1930s that "fast freight" really became a significant armament in the war against highway motor carriers.

Santa Fe Railway No. 3936, one of 140 heavy 2-10-2s the road received from Baldwin between 1919 and '27, tramps up Cajon Pass with California oranges. This scene is from the 1940s, but the hardware — a plodding freight hog hauling ice-cooled reefers — would be familiar to railroaders of the Standard Era.
Herb Sullivan

THE ROLE OF LOCOMOTIVES

Locomotives played a great part in making the Standard Era what it was and finally in transforming it into something else. This was the story:

In minor details, locomotives of the Standard Era came to as many railroad family types as those of any other era. But the basic wheel arrangements and dimensions had been evolved as early as 1910: 4-6-2s and 2-8-2s for work on the flat; 2-10-2s, 4-8-2s, and Mallets to struggle through the hills or handle the heaviest trains; and 0-6-0s and 0-8-0s for the yards.

Nothing helped standardization of steam power more than World War I and the United States Railroad Administration. The latter, though it has justly been cited for its "tricky mismanagement" (that's a John O'Hara phrase), did some commendable things with reciprocating steam. In its dozen or so steam designs — all to a rigid, neat family pattern — the USRA nicely rounded up previous experience in steam building. USRA patterns would become virtually the entire basis for the motive power of some roads in the 10 years following World War I. And almost every subsequent attempt at steam building borrowed something from the USRA.

And there were lots of subsequent building attempts. Rumblings in the locomotive foundries during the early 1920s indicated that, for a few superintendents of motive power at least, the steam experience of the USRA and the preceding part of the Standard Era wasn't enough.

Out at Lima, Ohio, were some queer goings-on. A Michigan Central 2-8-2, which the locomotive works there was building, had a strange dome arrangement, the air pumps were placed on the pilot, and the engine had extraordinarily compact lines. A close investigation of an unusual-looking pipe under the cab indicated that the locomotive had an auxiliary steam engine in the trailer truck. Two long rods on the right side connected by a crank and extending from the cab proved to be a newfangled throttle arrangement. That thing on the smokebox front which made the locomotive look as if it had a headache turned out to be a device for heating, via ex-

haust gases, water entering the boiler.

Smart motive power men kept their eyes on things out at the Lima plant.

It was two events in 1925 — both motive power innovations — that most definitively spelled an end for the Standard Era. Lima followed up the MC Mikado with its fabulously successful demonstrator 2-8-4, the Super Power A-1, which touched off an unparalleled ferment in American steam designing and one which wasn't to end until the fantastic duplex-drive giants of the early 1940s and the subsequent diesel squeeze-out. The second event foresaw an even greater revolution, although one that would wait many years for fruition: Jersey Central's acceptance of a diesel-electric switcher from Ingersoll-Rand.

Baldwin a year later pushed developments in other directions with a long 10-drivered machine that seemed to carry an extra layer of fat over the firebox and whose crossheads seemed to be set an unusual distance ahead of the cylinders. Publicity confirmed that 4-10-2 No. 60000 was Baldwin's attempt at a working synthesis of the new watertube-boiler and three-cylinder ideas.

The effects of Lima's A-1 were, as it turned out, not quite universal, and the three-cylinder and watertube-boiler experiments were even less influential. Standard Railroading was apparently deeply entrenched with certain motive power departments — outfits that would barely get beyond the USRA peak in steam development.

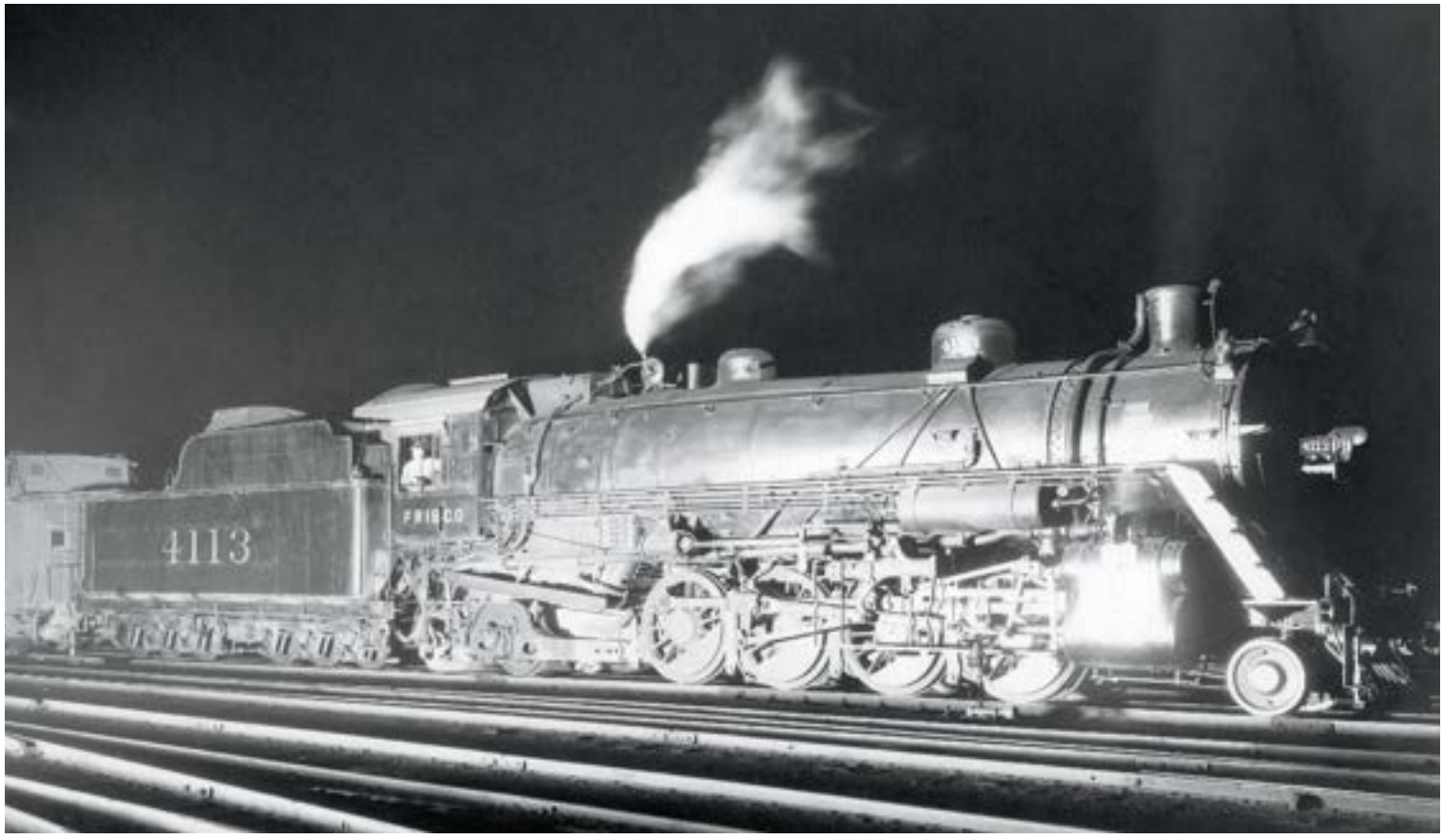
Southern Railway, for example, was never to build a steam engine after its conservative Pacifics, Mikes, and articulateds of 1928. In the decade-plus until road diesels came, The road would be indifferent to such proved innovations as high-capacity fireboxes over four-wheeled trailer trucks, disk drivers, front-end throttles, or one-piece engine-bed castings. (It should be said for Southern that its 1940–48 program of minor modifications for locomotives was probably the most extensive such ever undertaken by a railroad. During those years, virtually every engine on the system received single-guide multiple-bearing crossheads; older engines got feedwater heaters, pressure lubricators, enlarged tenders, rebuilt cabs, and rebuilt sand domes.) And the carrier but barely flirted with roller bearings and booster units. Southern was the only major American road that never used a one-piece trailer-truck casting.

Other examples: Katy never got beyond Mikes and Pacifics, and neither did that same Jersey Central which had been so daring with diesel switching power. It took the pressures of World War II to force several southern and southwestern roads to take up with really modern steam power. That happened with the Louisville & Nashville; it happened with the Central of Georgia; and it happened with the Frisco. One can of course speculate that the latter carriers might have taken up with high-capacity power anyway. L&N, for instance, reordered Berkshires after the war.

SOME INNOVATORS

The late 1920s may have spelled motive power stagnation for some roads, but the years were only the beginning in development for others which had seemed conservative before Lima's A-1. The Delaware & Hudson, which had never made much locomotive news up until the mid-1920s, was after 1924 to burst out of the ranks of Standard Railroading and become a veritable pilot plant for steam development. Its earlier high-pressure and poppet-valve experiments and its later 4-8-4s and 4-6-6-4s kept D&H at the head of steam development.

A similar instance: Though the B&O in the 19th century had a long and honorable history in railway development, the road had in the first decades of the 20th made a half-hearted attempt to become a standard railroad. At times it looked as if B&O had succeeded. Its passenger equipment was ponderous, correct, and to a pattern; its motive power was built along conservative family lines; and its publicity was well-mannered and stodgy. But as the '20s went by, B&O's executives, designers, and shopmen proved far too daring and inquisitive to be content with any summer sol-



The USRA's influence extended far beyond the World War I agency's 26-month lifespan, notably in locomotive design. Thousands of engines, some built decades later, were direct descendants of standard USRA types. The Frisco's 65 2-8-2s of 1923–26, for example, were near-copies of the USRA heavy Mikado.
CLASSIC TRAINS collection

stice of normalcy. They couldn't keep from fiddling with high-pressure and valve experimentation, from souping up older power, from coming up with odd versions of new wheel arrangements (what other railroad would in four years' time build four single Hudsons, each of a different class and specifications?), or from trying out heavy road diesels almost before anyone else. And if you want non-motive-power examples, there were the freak rounded-top boxcars and color-position-light signaling system.

STUBBORN VARNISH DOLDRUMS

If steam had removed itself well from the Standard Era doldrums by the late '20s, it would be another several years before passenger-car practices would do the same.

Iconoclastic B&O started things in 1930 by finally introducing a much-needed air-conditioning system in passenger cars. But it was two toylike streamlined articulated trains of four years later that most surely effected the revolution and most surely made the railroads realize that fleets of Pullman green or Tuscan red lookalikes weren't enough. Union Pacific's first streamliner and Burlington's *Zephyr* may have been crude, but they pointed to a dashing new concept of passenger service that would eventually be followed up and developed on almost every big passenger carrier.

By the mid-1930s the lacquer of the Standard Era — once so substantial and so elegant — was beginning to wear off everywhere and in almost every phase of operation. Not only had a severe economic depression cut business to the marrow, but competitive forms of transportation had come into their own. The railroads found they had to forsake their old standards.

By the mid-1930s the lacquer of the Standard Era — once so substantial and so elegant — was beginning to wear off.

No one can reasonably doubt that the carriers had made an auspicious start in breaking with the Standard Era by the United States' entrance into World War II. By 1942 Lima's pioneering A-1 2-8-4 with its penchant for sustained high-horsepower performance had for most roads become the basis for a new steam regime. There had now been dozens of orders for the bigger, faster, and more efficient locomotives of Super Power ancestry. There had been freight runs set on schedules faster and tighter than ever before. There had been Centralized Traffic Control installations for faster, more economical service. There now existed fleets of comfortable coaches built of light, shiny metals, and there had

been extensive rebuildings of older coaches.

But most of all there was a good start at dieselization and its economies which, so many railroads have said, saved them from either oblivion or sharply reduced operations.

Today practices of Standard Railroading recede toward an infinitesimal level with every order of rolling stock or motive power, with every plan for a new train, and with every new customer service. And as one looks apprehensively at the monorail setups and the plans for conveyer railways, one wonders if there aren't still more radical standards yet to come.

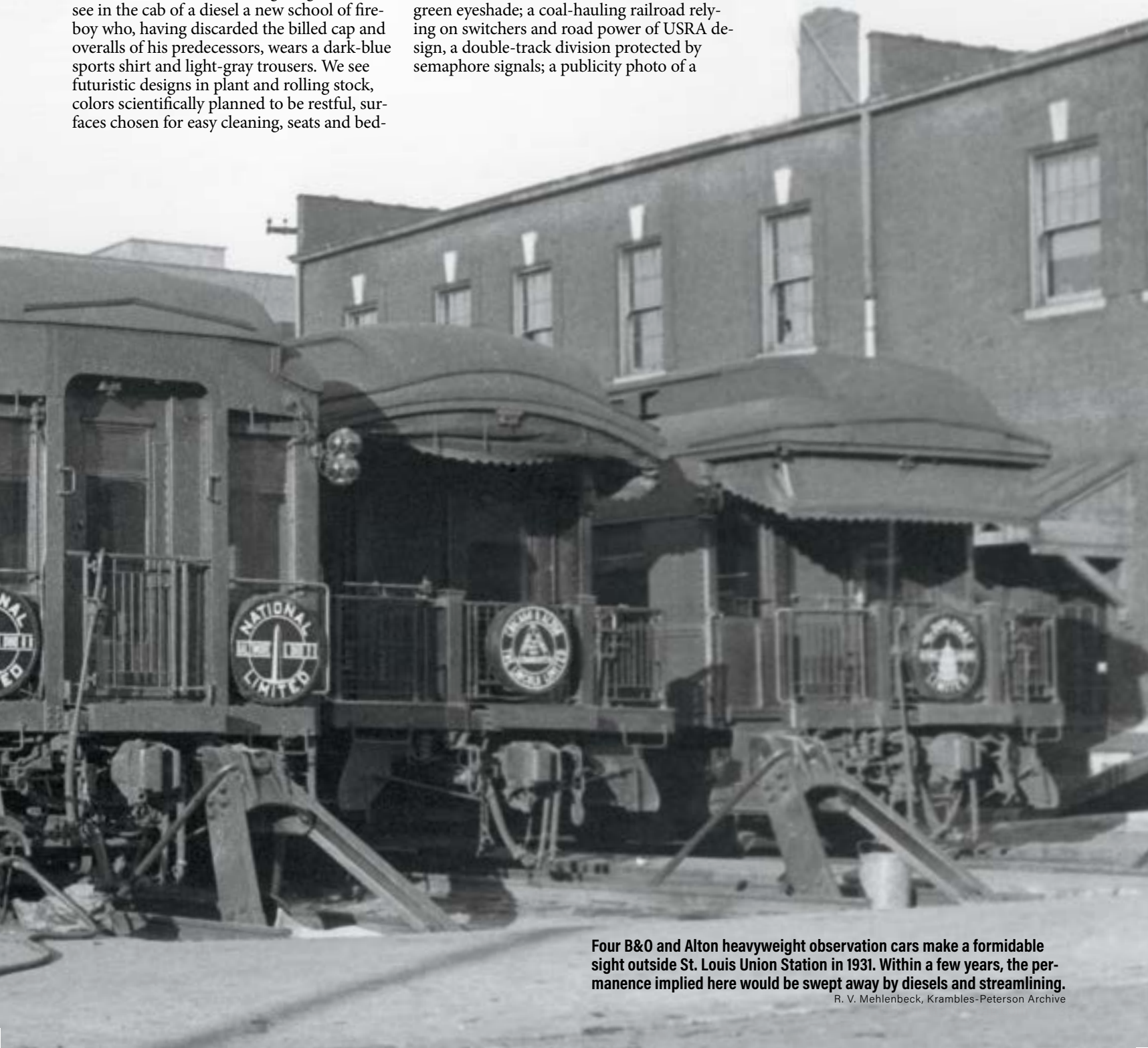
We see trains featuring pretty stewardesses with short haircuts and college degrees. We see in the cab of a diesel a new school of fireboy who, having discarded the billed cap and overalls of his predecessors, wears a dark-blue sports shirt and light-gray trousers. We see futuristic designs in plant and rolling stock, colors scientifically planned to be restful, surfaces chosen for easy cleaning, seats and bedrooms designed for the utmost in comfort.

What Frank Lloyd Wright and Le Corbusier have done for building architecture, Raymond Loewy and Otto Kuhler have done for the architecture of locomotives and rolling stock. Old classic railway forms are strictly passé and one who pines for them is stuffy.

Yet they persist, those few stubborn survivors of the Standard Era — and will continue to, at least for a while longer: the train crew of a streamliner who are dressed in black uniforms of Edwardian cut and fit; a fleet of dark-green commuter coaches designed to the modified Pullman pattern; a telegraph operator at a rural station who wears a vest and green eyeshade; a coal-hauling railroad relying on switchers and road power of USRA design, a double-track division protected by semaphore signals; a publicity photo of a shined new steam locomotive with the drivers at the bottom of the lower quadrant.

And one who pines for the Standard Era dreams of an atomic-powered Hudson — with graphited smokebox, silvered driver tires, and a cloth cab awning, to be sure — and wonders if *that* wouldn't be a triumphant if partial return to the pleasant old past.

*H. STAFFORD BRYANT JR. was a journalist and author (*The Georgian Locomotive*) who spent 25 years at New York publisher W. W. Norton. A native Virginian, he died in 2016 at age 90.*



Four B&O and Alton heavyweight observation cars make a formidable sight outside St. Louis Union Station in 1931. Within a few years, the permanence implied here would be swept away by diesels and streamlining.
R. V. Mehlenbeck, Krambles-Peterson Archive

Citadel of CB&Q steam

Burlington Route 2-8-2 No. 4947 switches at Centralia, Ill., on August 31, 1957, when CB&Q operations in this coal-country terminal were still 100 percent steam. (Named for Illinois Central, this was a late-'50s hotbed of IC steam as well.) Although the O-1A Mikes were no beauty queens, one, No. 4960, became a fan favorite as one of the Burlington's two 1960s excursion engines; she's worked at the Grand Canyon Railway since 1996. Jim Shaughnessy

Cab ride on a Camelback

PULL ON YOUR GLOVES AND GOGGLES. WE'RE GOING ON 52 OF THE MOST EXHILARATING MILES TO BE HAD ABOARD A STEAM LOCOMOTIVE

By **DAVID P. MORGAN**
Photos by **PHILIP R. HASTINGS**

A human experience without parallel — a ride on a steam locomotive — is rapidly passing out of a man's possession. Once you sling a boiler capable of several thousand horsepower high up over driving wheels as tall as a basketball player and exhaust the energy through a transmission of reciprocating steel rods, it's patently clear that the men aboard operate in a world of heat and metal all their own. It is all that and more on a center-cab "Camelback" locomotive where the fireman rides at the rear as nature intended but the engineer holds down a seatbox affixed to the running board — right above the drivers and alongside the source of energy. This sensation is no longer available in scheduled service — but before it died, TRAINS attempted to record it for the printed page so that *you* could at least partially experience an unforgettable journey.

Jersey Central engineer Joe Pall oils around (main photo) as fireman Frank Ballinger relaxes on his side of Camelback 4-6-0 No. 754's center cab. The men are laying over at Dunellen, N.J., after bringing a train out from Jersey City. On the road (top left), the fireman is busy in his shelter at the rear of the engine.

FROM
MARCH
1956
TRAINS
MAGAZINE

Although the timetable noted the 12:38 p.m. train out of Jersey City Terminal as *DE* ("Diesel Electric power regularly assigned"), May 18, 1953, was a happy exception to the rule. Up forward on track 13 and coupled to the train's four cars was a genuine, fire-breathing Camelback.

As the train departs Jersey City, a rearward view over the tender headlight and coach-lighting generator shows dead steam engines stored on tracks outside the terminal. Most would never run again.

The train makes a 5-minute stop at Elizabethport for a connection from Newark. Fireman Ballinger is out on the station's high-level platform for an infrequently practicable chat with engineer Pall.

Ballinger watches for the highball at Elizabeth in the time-honored pose that, more than any other, perhaps, captures the spirit of railroading aboard a Camelback. His job is complicated by the fact that while firing he is actually standing on the deck of the trailing tender. Synchronization is needed.

TRAINS Editor David P. Morgan watches from the left side of 754's center cab as Baltimore & Ohio's *Capitol Limited* speeds through Westfield on the last few miles of its run from Chicago.

After the station stop at Dunellen, 26 miles west of Jersey City, the 754 supplies air to a turntable that positions her for the return trip. The modest terminal, with wooden water tank and ancient maintenance-of-way car, would soon be radically altered by a grade-separation project.

The brakeman operates the water plug during the layover. He has a handkerchief tucked in his shirt collar to keep out cinders. The wide Wootten firebox, necessary for slow-burning anthracite coal, prompted the location of the engineer's cab astride the boiler

Turned, watered, and oiled up, the Ten-Wheeler is run around the train at Dunellen and coupled up to the train for the run back to Jersey City. Indicative of the engine's occasional need to pull trains while running in reverse, the tender sports a pilot.

A B&O *President* Pacific hustles through Dunellen on a westbound light-engine move as the Camelback builds up steam in the yard.

A wave from our brakeman and a burp from an air horn in return as green Alco RS3 No. 1553 breezes past with train 107, bound for Mauch Chunk, Pa. (since renamed Jim Thorpe).

Ready to return to Jersey City as train 726, the Camelback and her consist ease out of the coach yard, preparatory to backing through the crossovers to the station.

GP7 No. 1522 accelerates away from Dunellen station with an eastbound suburban train as the "Mother Hubbard" type pulls out of the yard.

At the station, street traffic crosses in front of the pre-World War I Baldwin, smoking impatiently before departure time.

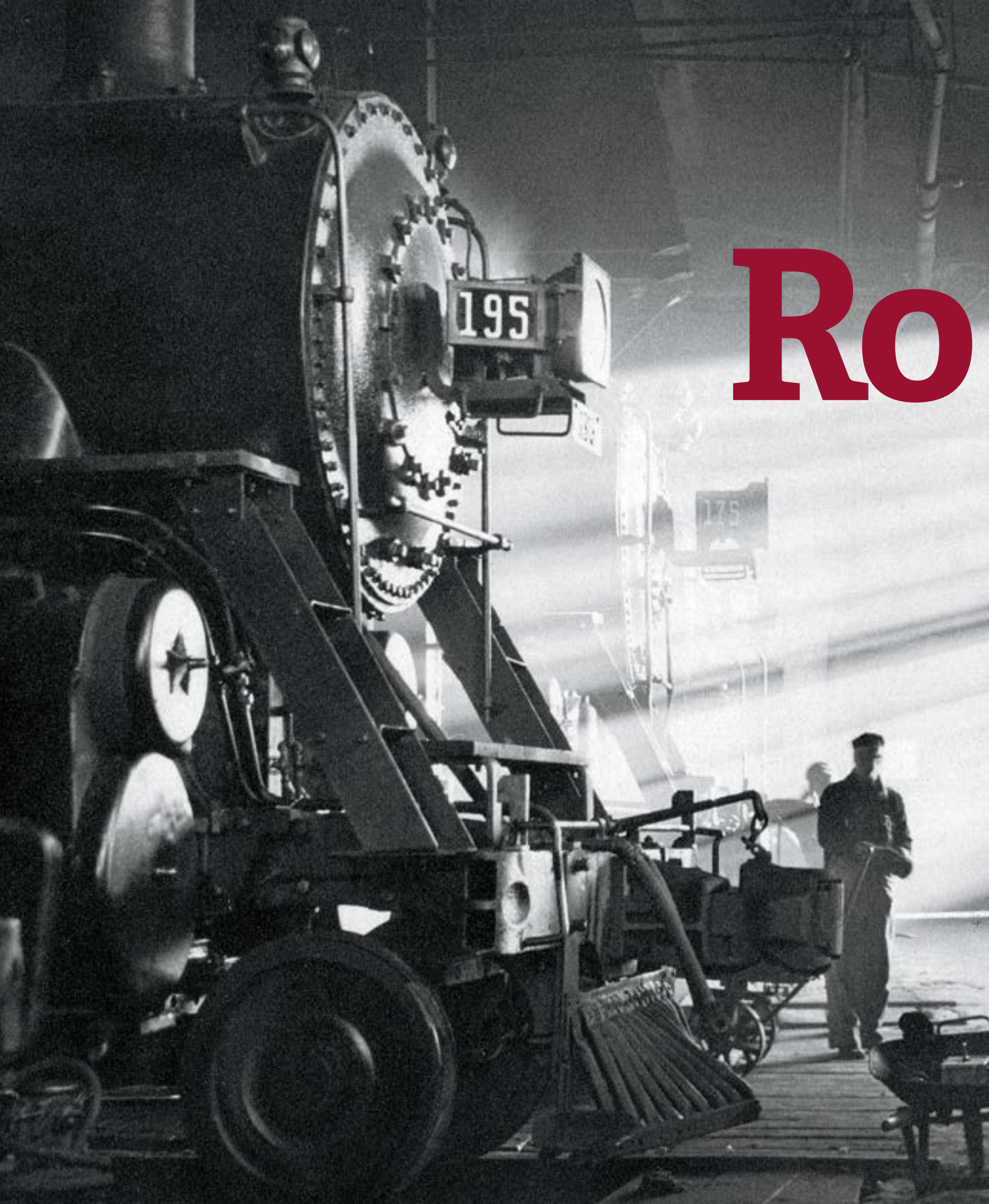
Train and engine crewmen confer beside No. 754 in the yard. Opinion varied as to Camelbacks' esthetic qualities. Certain radicals bucked the popular vote, maintaining that the center cab and out-sized Wootten firebox gave an excellent overall balance.

Fireman Ballinger watches a woman passenger walk past the 19th-century crossing shanty and his locomotive a few minutes before leaving time from Dunellen. The engine terminal's water tower is visible above the 754's bell.

Highlight of the trip is the passage over Jersey Central's massive four-track, twin-lift-span bridge across Newark Bay, just east of Elizabethport. Five years later, 48 people died when a diesel-powered train ran past these signals — showing all red because the bridge was raised — and into the bay on September 15, 1958.

Engineer Pall, sitting on the cab window armrest in the manner of countless Camelback hoggers, has stopped outside Jersey City Terminal amid a phalanx of semaphores and slip switches to let B&O E units pass.

With the terminal head building and the skyline of Lower Manhattan visible beyond the trainshed, Jersey Central 726 — one of the last Camelback-powered trains to enter the station — nears the end of its run.



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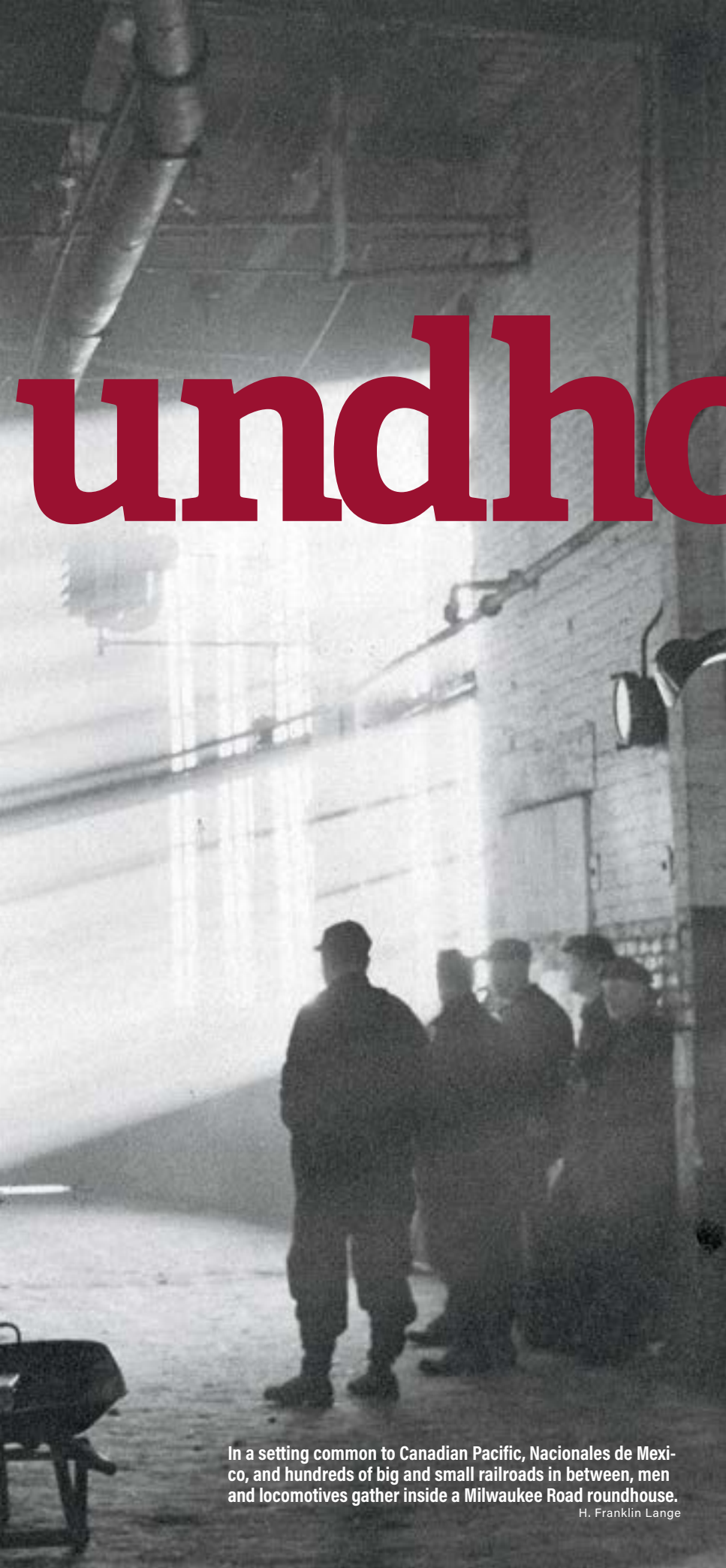
FROM
JULY
1977
TRAINS
MAGAZINE

roundhouse foreman

By **F. H. HOWARD**

LOOKING AFTER THE MEN AND LOCOMOTIVES AT A CANADIAN PACIFIC TERMINAL REQUIRED A WIDE RANGE OF SKILLS



In a setting common to Canadian Pacific, Nacionales de Mexico, and hundreds of big and small railroads in between, men and locomotives gather inside a Milwaukee Road roundhouse.
H. Franklin Lange

Life for a junior foreman in a secondary engine terminal may not have changed in principle since the last days of steam on the Canadian Pacific, but it must have changed in detail.

First of all, in steam days, each of your engines needed various rigorous examinations of its motion. Ah, yes, the motion, shaking itself as if to pieces with every turn of the wheel: inertia forces, unbalanced forces, centrifugal forces. In consequence, side rods had to hold the driving axles their precise distance apart, supplementing the shoes and wedges, which couldn't retain their precision in spite of your constant attention. Pistons started to or tended to bump cylinder heads. Engineers reported pounding, or you anticipated their reports; and periodically you instructed that rods were not to be greased on incoming power so that you could fulcrum a great crowbar on a driver spoke and lift up each rod and then let it down to check the slack betwixt pin and bushing. You had to rebush the rod if the slack was excessive, or rebore the big end if it was split — all of which you hoped could be deferred until the entire affair

CP 2-10-0 No. 5751, rebuilt in 1916 from an 0-6-6-0, switches at Montreal in 1948. A cranky old engineer viewed sister 5755 as "his engine," and raised a stink when author Howard gave him a 2-8-0.
J. P. Ahrens

had to be dismantled for white-lead testing.

That — the white-lead testing — had to be done in ever larger increments every 90 days and was climaxed by the yearly hydrostatic test. In this, not only was all the iron stripped off and examined for cracks under white lead but the boiler was delagged and tested for its own peculiar deterioration. Said boiler had to be washed out every month of its life.

Motion and boiler: These were what bestowed on the steam locomotive its reputation for high and labor-intensive maintenance. Since all of the maintenance was mandatory on every engine, every day was scheduled for some of this routine, arranged as best you were able. Yes, and a daily examination of each smokebox netting had to be made by a boilermaker, and the engine-truck journal cellars had to be repacked by a helper. You were always aware of the flange condition, especially of the leading wheels, on your power. If you weren't, a government inspector might be. Blowing piston rings and piston-rod packing were reported by engineers. Crosshead shoes were watched by you or by the fitters, generally to be fixed at washout time, when an engine was available for hours. From time to time, you could work in a Class 3 repair, which could tie up an engine for weeks if your men were needed elsewhere.

Your days now and then were enlivened by the breaking of a water glass and the essential but uncomfortable task of shutting off the gauge cocks so you could get the water glass replaced, or by the problem of how to dispatch 14 engines in the forenoon while your turntable was out of action for its own heavy repairs (this just took planning). Your turntable was old, like everything else, and often required running repairs from your air-brake man, the only pneumatic authority on the property.

Passenger trains were sacred and always had to be protected by a backup engine; this called for careful assignment of power and accounted for its apparent under-utilization. You could usually get a passenger engine washed out and well maintained in the period between daily assignments, unless it was a real troublemaker.

The company liked its passenger engines to look like passenger engines, which meant special attention from laborers, when you had them. Not all of the inspectors were as rigid as the Brit who used to run his gloved finger over the inside of driver spokes looking for grime; but the 14-karat gold leaf striping and lettering had to be washed with Oakite, white walls on tires needed to look white, and side rods had to be buffed. Steam-locomotive grime was special and plentiful — a compound of coal dust and grease that dirtied overalls in two days if you climbed around much (as you were supposed to).

Delays in servicing passenger trains that were running through could, you were confident, be explained by "loading express," even though no express had been tendered at that station for 10 years. The dispatcher knew that too, but you were all playing the same game in the end; the general manager likely was a player as well.

And winter — winter on the glory road. Snowplow extras wore tarpaulins over cab and coal pile when they were out on the road; in the yard, two plows often went out back to back with the power between, up and down all the tracks as long as the snow was falling.

Winter was the time to find where steam was leaking, a real menace if it was outside: frozen ashpans and ashpits, sand pipes and air reservoirs, turntables and coal chutes.

There must never be frozen water spouts, though, and never, *never* frozen injectors or delivery pipes. Simple devices protected against such catastrophes, and the punishment for failure to use them was terror-inducing.

You liked new engines, but management was scrupulous in its distribution of such largesse and your share was minute. The effect of new engines on maintenance costs and peace of mind was as pronounced at your level of management as it was in the boardroom.

You grew familiar with trade names that were to disappear if they did not adapt to diesel: Franklin; Sunbeam; Okadee; Waugh; Elesco; Worthington; Hunt-Spiller; Nathan; Signal; Barco; Ragonnet; Valve Pilot; Cyclone; Baker-Pilliod; Hancock; Sellers. Good night, Standard Stoker — wherever you are! The steam locomotive was, among other things, a collection of patented devices specified by designers but seldom proprietary to the builder or to the owner.

Antismoke laws came along to take another year or two off your life, what with needing special bits of piping to reduce smoke when lighting up. You had to monitor the bank firemen and the stationary firemen too, with Ringelman smoke gauges. Pollution distaste is taken for granted now, but then it seemed a nuisance put upon you by a petty official at City Hall. Would they rather see no smoke at all, from a deserted roundhouse full of laid-up power? Why, *you* were moving a nation's commerce — but people were beginning no longer to listen.

Some boredom existed, as in the Army during the war, and you needed luck and the obliging help of friendly men who could cover up your minor failures just as you covered up theirs. Which was as in the Army. In fact, a day in the operation of a railroad was like a military operation, as *Fortune* magazine once observed, and the discipline had similarities — sometimes thoughtless, harsh, even ridiculous, with some management performed by intimidation and fear. But not all of it; not even much of it. And there were incidents involving people, their eccentricities, personalities, habits, and strategies for pursuing the aims of their employers or themselves; some humor; and some head-shaking.

THE PHANTOM BLACKBOARD

Orders came down that each roundhouse was to have a fine big blackboard with a clock mounted at the top. This board was to be lined out in columns headed TRAIN, TIME OFF SHOP TRACK, ENGINE CREW, and REMARKS, all to be dated so everybody would always know the status of everything. A blueprint was supplied to ensure that all was standard.

Well, you got one made in due course. You had it erected in what seemed the right place, about 150 yards from the roundhouse clerk's chair and likewise from where the crews booked in; but somehow it didn't seem that the whole setup would be perused or maintained with any great enthusiasm. Engine assignments had hardly changed at all in the last several years, and once crews bid their jobs at change of bill, it took only about a week for all concerned (and even a few not concerned) to have the lineup memorized. Almost everybody had a $100 watch too.

But you solemnly filled in all the spaces and dated it that day, then put the chalk in the ledge along with the brush.

And that was that. Not a name or a number was erased or replaced, nor was anybody ever seen reading it. All of it was scrapped when the roundhouse was demolished years later.

SUPER SNOW MELTER

A creative type at a material-handling company once dreamed up a novelty, one of which your people bought. This was a snow-gatherer that, instead of wedging the stuff aside, picked it up with a kind of screw, carried it back, and dumped it into a tank to be melted. The machine took the biggest engine you could find — requiring two firemen if it was a hand-bomber — not only to push the apparatus but to steam the snow into slush. When the tank was full, the slush was dumped into the river off the nearest bridge. The machine was a good way to clear snow from the passenger station and yard tracks.

One night the "extra snow melter" was assigned to a somewhat eccentric engineer. He started out normally and got his melter-cum-locomotive way down the shop track to the

Winter on the glory road meant there must never be frozen water spouts, and never, NEVER frozen injectors or delivery pipes.

mainline switch, out of your sight and presumably out of your jurisdiction. But not so, as the dispatcher's phone complained.

"Where is he?"

"He's gone."

"Like hell he's gone. He's still on your shop track."

"I saw him go."

You hadn't, but at night your field of vision didn't extend as far as the switch.

"Find him and get him out."

So you did just that. At least you found his machinery and equipment and the fireman building up his fire and steam for the heavy work to come — but he was by himself.

The engineer, you learned, weary of or bored by the delayed mainline switch, had gone away for a bite, evidently feeling that traffic would stay heavy enough to keep him on the shop track for a while longer.

His conscience impelled him back to his cab after 15 or 20 minutes, and the expected and respective opinions were exchanged. This took another minute or two. By now the fireman had used up 3 tons of coal; and since the rule was that a snow-melter's engine had to start out with all the coal it could pack, it was necessary to back up to the coal chute. All was fine, except that two more engines now had arrived behind him, waiting themselves to get out, and nobody was disposed to back up to accommodate anybody, even for 5 minutes.

And so on.

WORN-OUT HUDSON

The afternoon was sunny. The railroading was easy. Hudson No. 2810 was turned out for the Sunday-only passenger train east. She was a big engine and worn out in spots, as you eventually were to discover.

A foreman looks over passenger engines particularly closely, and in so doing this time you heard a faint hiss of escaping air — a leaking union in the main reservoir pipe right behind the air pump.

Sunday afternoon meant little help, but you found somebody who could go to work on this without a grievance from the pipefitter. It took a 4-foot Stillson wrench with the two of you standing on a box out on the cinders, but you stopped the leak. No. 2810 left the shop track and departed town with its train, and you went home and took it easy.

Next afternoon, the master mechanic said:

"You're lucky. You're almost out of a job."

You said nothing.

"Do you know what happened to 2810?"

A rhetorical question, so you still said nothing. Anyway, you wanted to find out what he knew before you told him what you knew.

"The whole damn main reservoir pipe split open just as she stopped in the terminal last night. They couldn't release the brakes, so they bled the air and had to tow her back out to the roundhouse."

"All we did here was tighten up a loose union."

"You should have taken off the union," the master mechanic continued. "You know that pipe *had* to be split under the union. Do you know what would have happened if that pipe had split open anywhere else?"

Yes, you knew: passenger train delayed; single track; relief engine sent out; the whole railroad tied up for hours. Big trouble. The kind vice-presidents get involved in.

"You can't just tighten up a union . . ." And on and on he went.

You lit a cigarette and wondered how you and a solitary shopman could have changed out a 4-inch, 20-foot-long pipe, with seven bends, in the 17 minutes remaining before 2810 was to leave the shop track. You didn't even know where to find that much 4-inch pipe . . . and thread it? . . . and bend it? . . . even figure out exactly what shape to bend it in? . . . even *lift* it?

It was not your engine anyway. It was maintained at the other end where they had all kinds of manpower and equipment and material. They should have discovered it.

The crack didn't start just yesterday. It was not your engine; it was theirs . . .

Even though it said CANADIAN PACIFIC on the tender.

"Where's 5755?" McNiven demanded. "I had to use her," you replied. "5755 is my engine." "The last time I saw her she had CANADIAN PACIFIC painted on the tender."

McNIVEN AND "HIS" ENGINE

You were lounging in the office door contemplating the surroundings and wondering who, if anybody, had laid out the landscape around this roundhouse. McNiven appeared. There would now occur a little trouble.

McNiven was an engineer who had held down the 7:55 p.m. transfer since they drove the Golden Spike. He was about 144 years old and cranky. His engine usually was — and in fact for the last 91 consecutive nights had been — 5755, a loosely-fitted-together old bastard Decapod, all that was left of an unfortunate experience in motive power that took place before you were born, and good only for this kind of work. But earlier this night, for once, you had had to dispatch 5755 on an extra transfer since that was the only power in the house just then. Now you had given McNiven 3701, an equally decrepit Consolidation, which shuffled in and got turned around just in time. It stood alone, unmistakably assigned to him.

"Where's my engine?"

"Right there."

"That's not my engine."

"It is tonight."

"Where's 5755?"

"I had to use her."

"5755 is my engine."

"The last time I saw her she had CANADIAN PACIFIC painted on the tender." Heavy sarcasm.

You went inside, but there was nowhere to hide. Anyway, McNiven knew all the places, and finding you took him about 1½ minutes.

"I can't take that engine. It has no classification lights."

"You know as well as I do, transfer runs don't use classification lights in the terminal."

"The rules say extra trains carry classification lights."

You were sure of the custom, but you weren't sure of the rules. You were not sure he was sure either.

"Your own engine has no classification lights." It was his engine again.

"I won't take this engine out without classification lights."

So, you resorted to the night supervisor on the company phone, a pedal-operated rig for those who need both hands and one mouth.

"McNiven won't take out 3701 on the 7:55 transfer."

"Why not?"

"He says he has to have classification lights. You know he doesn't need them. He's never had them before."

"Well, give him some now."

"What do you mean, give him some? The engine isn't even wired for lights. You can't just go into the stores and pick up a couple. We don't have any anyway."

"I don't care what you do — give him his lights."

"Look, this is a roundhouse, not a backshop. I can't rebuild the bloody engine."

"That's your problem," the supervisor informed you. "Get him some lights and get him out of there. He's due out right now."

Who's running this railroad anyway, the engineers or the management?

All you could do — and you were pretty smart to think of it — was to pinch a couple of crated oil-burning marker lights from the car stores and mount them on the brackets on the smokebox. They showed red or green, but not white. McNiven didn't care; he didn't even want them filled, let alone lit. No. 3701 tramped out, displaying unlit, meaningless rear-end markers on the head end.

You got on the Bell phone then to the chief supervisor. You didn't want every operator and towerman in the terminal to hear this, let alone the man who had let you down.

You described the discussion, explained how locomotives are designed and construct-

ed, especially 3701 and 5755, confirmed the rules about displaying signals, proclaimed that you were right, wondered who was running the railroad, and pronounced the supervisor as having no guts. The chief agreed with everything you said and shut you up with a high opinion of your character and loyalty.

Immediately the company phone rang.

"So, Mr. Howard, I have no guts . . . ?" A grinning hostler, idle for the moment, had been holding his foot on the company phone pedal all the time, so everything you had said to the chief had gone out all over the terminal, including — and especially — to your antagonist. The chief's side of the conversation had not.

You left a note for the day man, who would return the markers to the stores. McNiven got his own engine next night; and as he booked on, neither one of you brought up the subject.

100 ENGINES IN, 99 OUT

And it came to pass that a religious congress was held in your town — a big one. It involved not the usual two or three special trains bringing in a local fraternal gathering, or the five or six for a service-club national convention, but about 100 trains, with ordinary people packing box lunches and riding in non-air-conditioned cars, many of them wooden, hauled in from storage tracks and inspected. Engines were utilized off way freights and through freights — anything with steam heat that would move this one-shot traffic in and out over the weekend. The power was from not just your division, not even from your district, but from the entire region and even beyond. Only yard power was exempt. Quite a feat of organization for some brass-hat committee; well done, too.

The weekend was a fine one for the spare board, with engines and trains deadheading back and forth making it even better. The weekend was a big one for you too, just finding places to store all this power, having their fires watched, and dispatching the locomotives back out in the crazy order the dispatchers called for them.

After the celebration was all over, the discovery was made that only 99 of the 100 engines that had brought a train in had taken one out. So you had an extra engine — an unmixed blessing, since it was a medium-size Mikado in good shape. Not that a big engine or even a medium-size one was as much help to you as it was to the dispatcher, but this one was so much newer than most of what was in your charge that you happily dispatched it as often as you could, as you reveled in the possession of some good power.

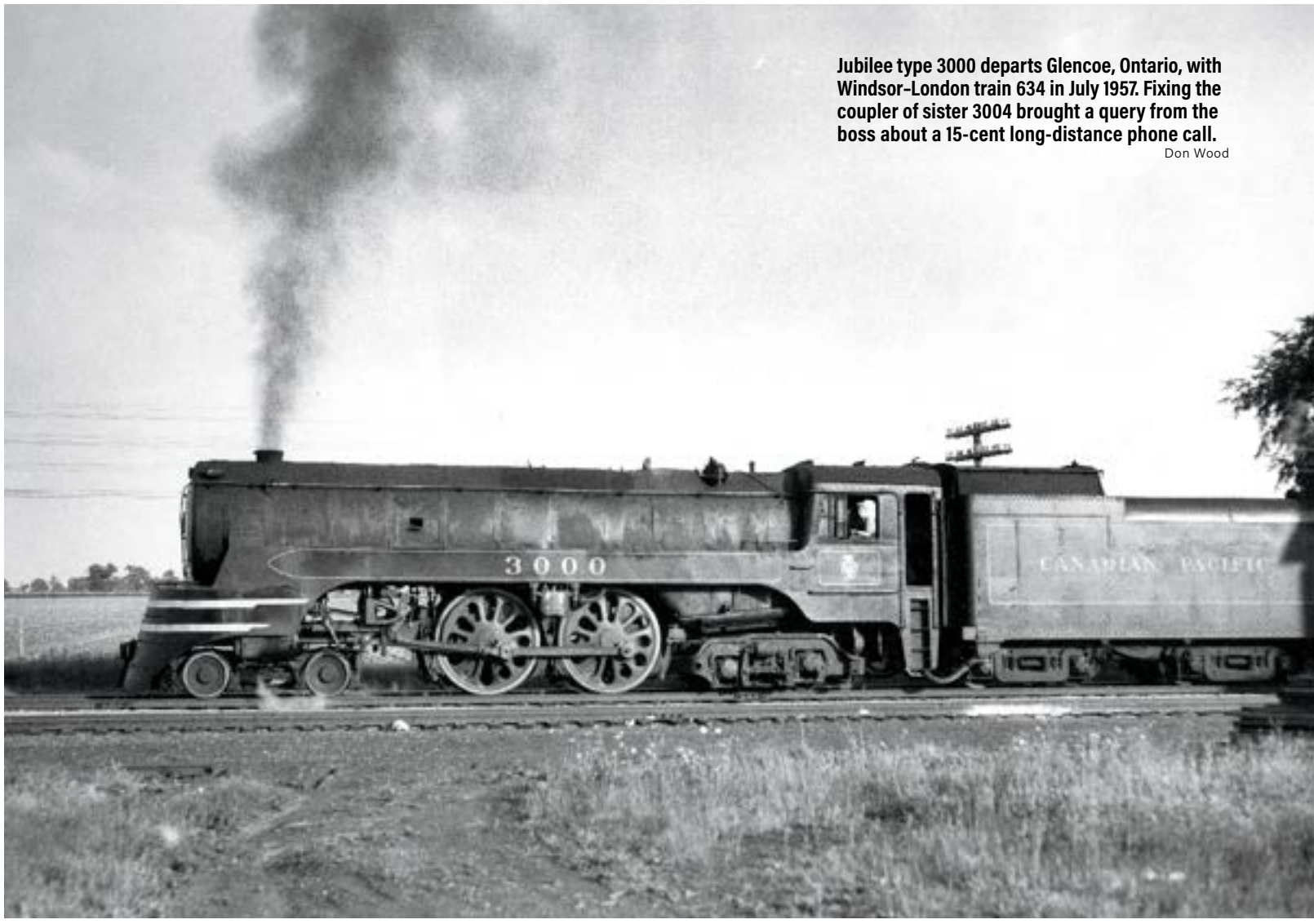
Firemen likewise reveled, since the engine had a stoker. The card in the cab told you what you had to know about when to wash it out and when you could defer maintenance, since you knew your possession of it wasn't going to last forever; somewhere else a foreman would start looking.

After a couple of weeks, the district master mechanic rasped at you just as somebody had rasped at him:

"That's not our engine," he said.

"Oh? No, I guess it isn't."

"You know it isn't. Why didn't you report it was left here?"



Jubilee type 3000 departs Glencoe, Ontario, with Windsor–London train 634 in July 1957. Fixing the coupler of sister 3004 brought a query from the boss about a 15-cent long-distance phone call.
Don Wood

Consolidation 3718 looks sharp after a 1929 rebuilding. Years later the lack of classification lights on sister 3701 was a point of contention between foreman Howard and an ornery hogger.
Canadian Pacific

"Nobody asked me."

"They've been wondering back east when they were going to see it again."

"Yes, I suppose they were."

"You should have sent it back. It belongs to them."

"We don't have any way to send it back unless you want us to put it on a passenger train. Then we'll have a passenger engine left over." Which was theirs too.

Or why didn't the dispatcher doublehead it back? It was not your worry anyway. It said CANADIAN PACIFIC on the tender, didn't it? It belonged to all of us.

SIMPLE FRACTIONAL ARITHMETIC

A roundhouse was credited with a dispatch every time it turned out an engine for a new assignment. Each time it merely turned an engine around or coaled and watered it, such as when a yard engine came in for a crew change, the roundhouse was credited with a half-dispatch.

The object of the exercise, as laid down by some remote scientific-type management, was to minimize the cost per dispatch, which was accomplished by reducing costs and increasing dispatches — simple fractional arithmetic, calling for considerable managerial skill, if not guile.

Now, if an engine that was maintained elsewhere arrived at your roundhouse and it had a new brake shoe, especially on the tender, it seemed quite reasonable to take off that brake shoe and put it on one of your own engines, substituting your old brake shoe for theirs. This gave you one more dispatch and allowed you to keep your power maintained without spending anything on that part. You could hardly do it with boiler tubes, and you didn't have time to do it with driver springs. Anyway, your distant counterpart would find out about major work like that and questions would arise. Your colleague he wasn't.

Some experts who had spent the better part of a lifetime manipulating their cost per dispatch concluded that the rules of the game permitted such conduct as this:

Let each car of company coal, upon being spotted on the coal chute ramp, be examined for brake shoes; if one brake shoe was new, let it be exchanged for a tender brake shoe on one's own power. All to the benefit of the company, to be sure.

In fact, let each cinder car (in the unlikely event that somebody had applied a new brake shoe to such a lowly piece of equipment) be examined likewise. Quite possibly a new shoe could be procured to go under a yard engine tender, both pieces of rolling stock having ancient arch-bar trucks but only one being subject to cost per dispatch.

Did some rip track have its own cost per

dispatch? Did cinder cars ever see a rip track? Would a cinder car run 1,000 miles over the rest of its miserable life? Who looked after them anyway?

And . . . was somebody else doing this to *your* engines?

UNLOADER, AWEIGH!

Now, your railroad had never heard of the proposition that bulk commodities could be hauled cheaper in trains than by water, if only you ran your trains properly. Your railroad brought in company coal by boat to a point where its rails met the water and there established a big coal dump, whence fuel was distributed up and down the line into a half dozen chutes. To accomplish all this, a dock had been built out from dry land and a mobile ship-unloading rig ran back and forth upon it. The rig was of ancient lineage, with ever-higher maintenance costs, and ever-lower reliability. When winter came and the water route couldn't be used (but enough coal had been stockpiled, so it didn't matter), this rig was stowed in a tied-down position on the land end of the pier. Or was supposed to be.

One day you got a message from the general superintendent to "proceed" to this coal dock and report on the condition of the unloader which, he informed you, had broken loose during a storm and had run down the pier to the water end, where it didn't stop. So you proceeded there, looked over the edge, and reported by wire what you saw and what you thought:

"Have examined unloader. It is under only 30 feet of water with ice on top. It does not appear to be destroyed but probably can be salvaged in the spring with a crane, and repaired in a few weeks without removal from site."

But that wasn't what this crafty official wanted to be told. "You were not asked for advice on what remedial action might be taken. You were asked to report on condition of machinery. Kindly provide report requested."

So you composed a new message with the advantage of a more sophisticated appraisal:

"Unloader, having crashed through ice, lies on bottom and appears to me to be beyond repair."

That was the report he needed to get authority for a new one and to remove that source of harassment from his daily rounds.

A JUBILEE'S CRACKED COUPLER

It was another Sunday afternoon, and spring was starting to melt the snow. No. 3004, one of the high-wheeled Jubilee types, was ready for her passenger train, having been looked over by the fitter and his helper earlier that day.

But the fitter and his helper hadn't seen that the coupler jaw was cracked. No. 3004 might go 100 miles this way or only 100 yards, which meant that the coupler had to be changed. You couldn't look the other way at times such as this.

To replace the part was a matter of bull work, but no more. The problem was to find a new one on Sunday with the storekeeper off duty. His front yard was decorated with spare couplers, like a graveyard with tombstones, but even if they hadn't been half covered with snow, it was hard to distinguish their finer points and they didn't have part numbers.

So you had to telephone him at his home in the suburbs and get him to describe the location. Like all good storekeepers, he knew such things by heart. You replaced the coupler, and the slight delay off the shop track would be recovered by an amiable engineer. Not bad for a late Sunday discovery with most men off duty.

Two weeks later the boss wanted to know who ran up the 15-cent long-distance telephone bill and why.

HAYBURNER ON THE PAYROLL

Stock pens weren't your responsibility, but you had friends who made their living there, fulfilling the Federal law which required that live animals in transit be detrained and certain amenities be provided to them every so many hours. More hay was part of this hospitality, and a horse and cart distributed supplies up and down the galleries alongside these stock cars. The horse, naturally, was fed from the hay provided for the cattle.

One day an economy wave washed in from headquarters that ordered a stop to the feeding of this horse on company hay. The threat was clear: the *man*handling of the stock-train supplies. Of course a way had to be found to prevent that. So quietly was added to the payroll another extra gang laborer whose pay went to buy the hay that once was free. Since the horse knew how to pull a cart but not how to sign for a paycheck, the foreman had to oblige, and the station agent bent the rules to let him do it. Everybody, but everybody, was an accessory to this minor corruption.

Except the relief man who took over the station when the agent was sick. He felt that the book was written to be followed, especially when it mentioned negotiable paper. Nobody was going to collect a paycheck who couldn't first identify himself personally. This the horse had never learned to do either, but a friendly surrogate no longer was acceptable, even with the explanation, "Harry had to go home for a few minutes and asked me to pick up his pay."

The new man was there only for that one payday, but that was enough. Arguments ensued, as they say, and the relief agent blew open the case. Officials at all levels threw up their hands in horror and disbelief that such chicanery could have taken place on their piece of railroad, and a general housecleaning had to take place. Men were "fired," but the chairman of the board didn't get to hear about it and gradually they were rehired. The horse was laid off permanently.

8,000 GALLONS OF LEAKING GAS

Three o'clock in the morning on a hot summer night. Not much was going on. An extra transfer was ordered in an hour.

A railway policeman came in to use your phone. It seemed that a tank car had derailed

With a cracked coupler jaw, the locomotive might go 100 miles or only 100 yards. You couldn't look the other way at times such as this.


2814

Hudson 2814 awaits its next assignment at London, Ont., in the darkness of July 13, 1958. An emergency repair to sister 2810 nearly cost Howard his job.
Don Wood

in the nearby yard and was creating more than a little excitement, so you wandered out to see why.

You saw why. It had been kicked with too much enthusiasm and appeared to have got its feet tangled up, which had turned it into something more than a mere derailment. It was lying on its side. Not only that, but a seam had opened up and gasoline was running out. And there were 8,000 gallons more left inside.

The terminal superintendent had materialized and was gazing at this distressing scene along with assorted switchmen, yard foremen, you, and the policeman. About the only decision made thus far had been the spontaneous and unanimous one not to smoke. Another decision — the terminal superintendent's — was to keep all locomotives well away; still another was to not perform any switching on adjacent tracks and to avoid the remotest possibility of some steel-to-steel contact that could strike a spark.

His next decision was to ask if you could find a bar of solder and a copper hammer. Of course — this you were good at. In fact, you wished you'd thought of it yourself and wondered why you hadn't. After all, you were the senior mechanical officer in a radius of 5 miles that night.

The superintendent lay on his back on the cinders and very carefully plugged the leak by driving the solder up into it tight and dry. Himself. Now operations could be resumed, and the car could be rerailed and start behaving like any other car.

That's superintending. It wasn't done from a swivel chair.

EVERYBODY'S FAVORITE V.P.

He was everybody's favorite vice-president. He had started as a male stenographer, then had been chief clerk, trainmaster, assistant superintendent, and so on, until he was virtually running the whole railway. Such experience included an endless succession of investigations and taking of statements following derailments, run-through switches, cornered cars, engine failures, passenger-train delays, and similar misfortunes. Each case was to be sent upwards for review and disposition, with every officer at every level doing his best to balance discipline, encouragement, understanding, improvement, prevention, and education; covering up what he should or could; and cracking down if he must.

After 30 years this vice-president's cheerful philosophy on all this emerged thus: "Now that we know the facts, what do we tell the management?"

The late F. H. HOWARD, who wrote his Bachelor's thesis on steam-locomotive design, worked for CP until 1950. He was with General Motors 1950–70, then headed a container terminal in Halifax, Nova Scotia. He had several articles in Trains *from the 1950s into the '90s.*

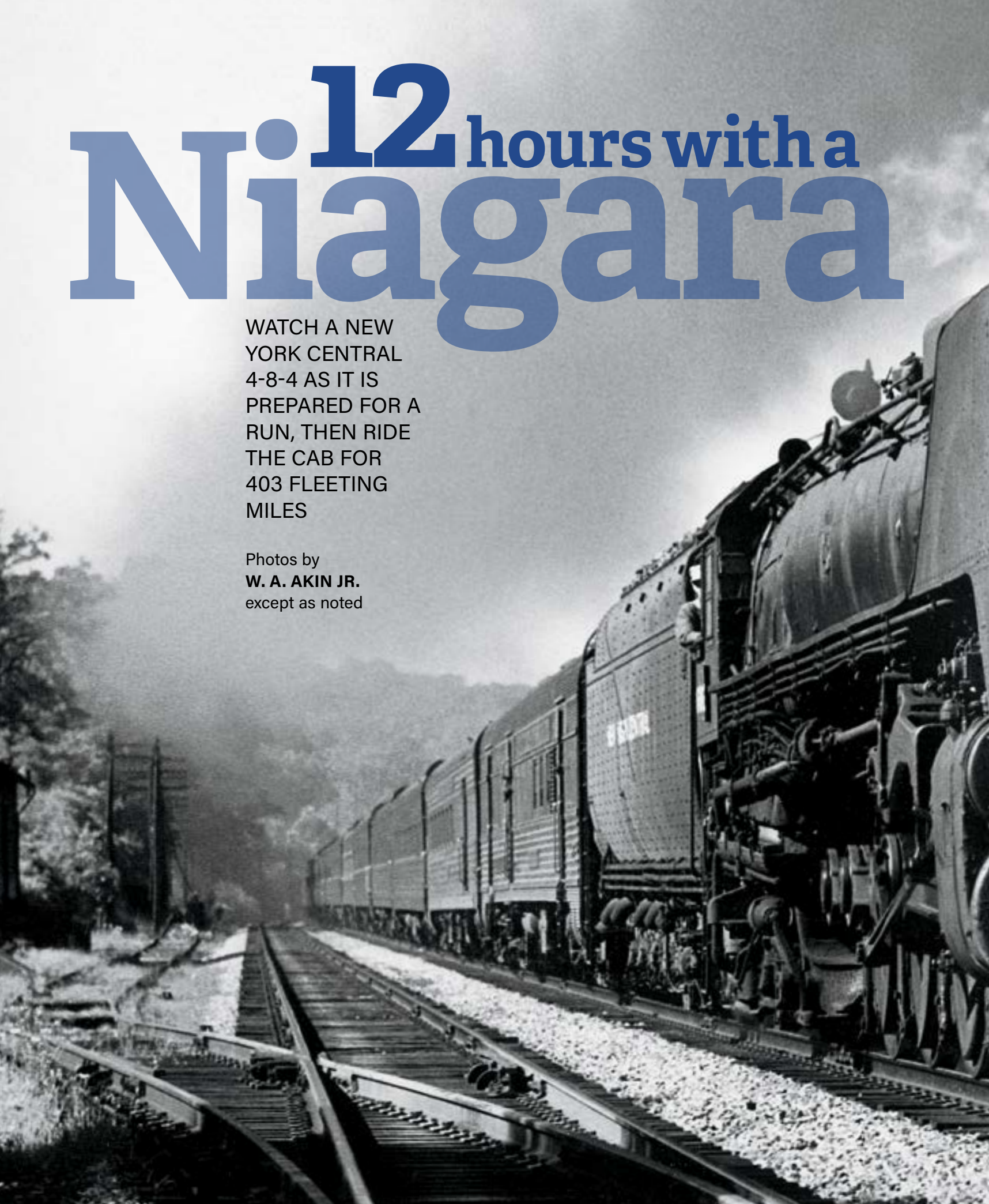
Quiet corner of the Santa Fe

At Socorro, N.Mex., 75 miles south of Albuquerque on the Santa Fe's line to El Paso, 2-10-0 No. 2566 has just come off the Magdalena branch as mixed train 44. Now, the white flags are up and the train will run as an extra north to Belen to tie up. The Decapod is a former Kansas City, Mexico & Orient engine built by Baldwin in 1925. This sun-drenched scene of small-town railroading was recorded in June 1953. Stan Kistler

12 hours with a Niagara

WATCH A NEW YORK CENTRAL 4-8-4 AS IT IS PREPARED FOR A RUN, THEN RIDE THE CAB FOR 403 FLEETING MILES

Photos by
W. A. AKIN JR.
except as noted



FROM
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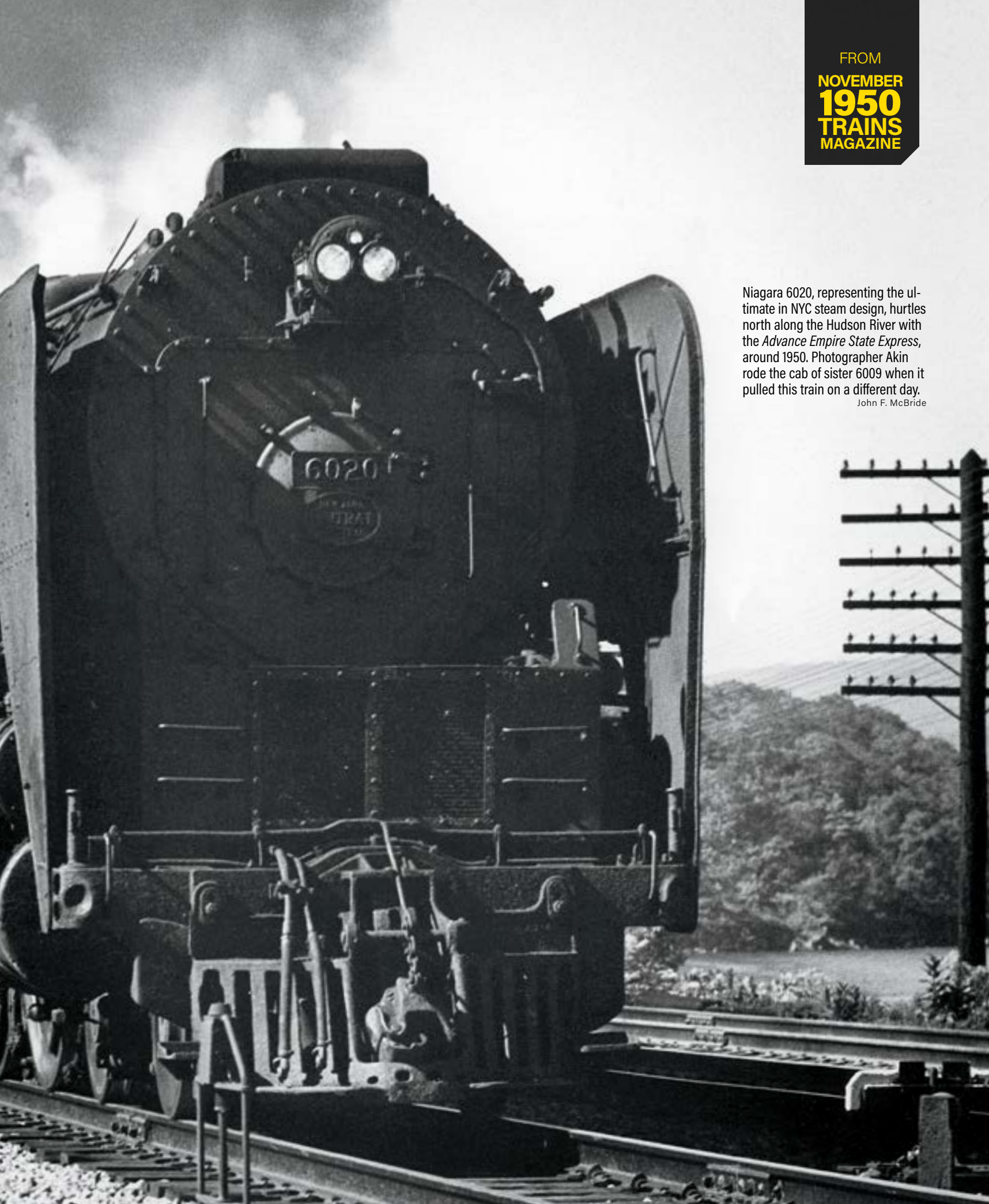
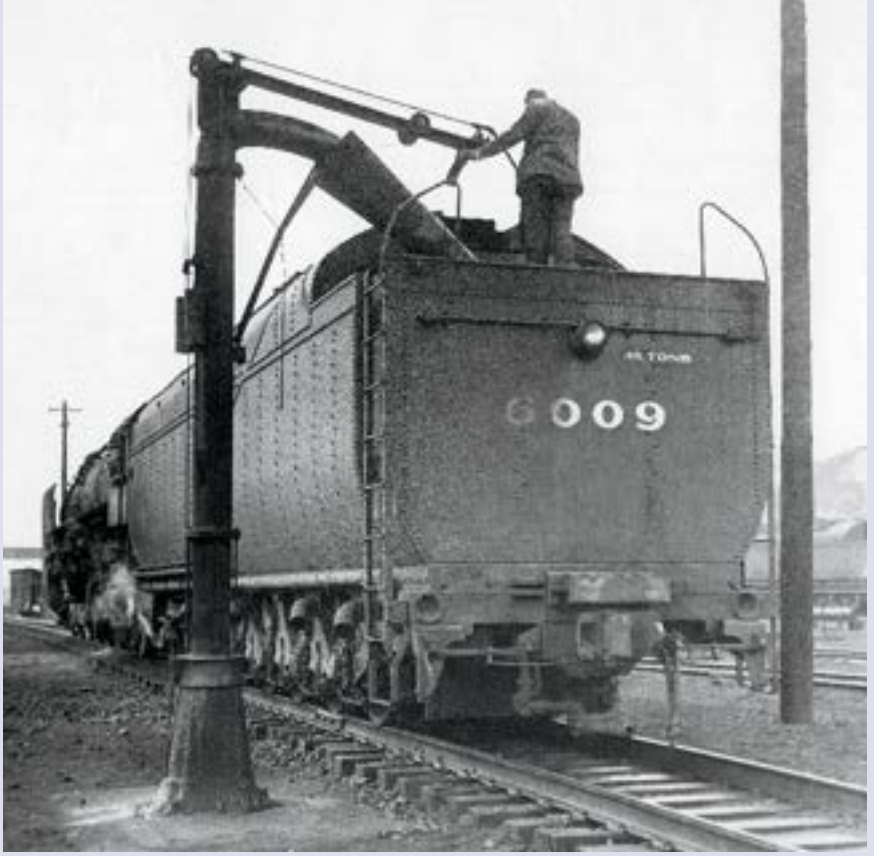


Niagara 6020, representing the ultimate in NYC steam design, hurtles north along the Hudson River with the *Advance Empire State Express*, around 1950. Photographer Akin rode the cab of sister 6009 when it pulled this train on a different day.
John F. McBride

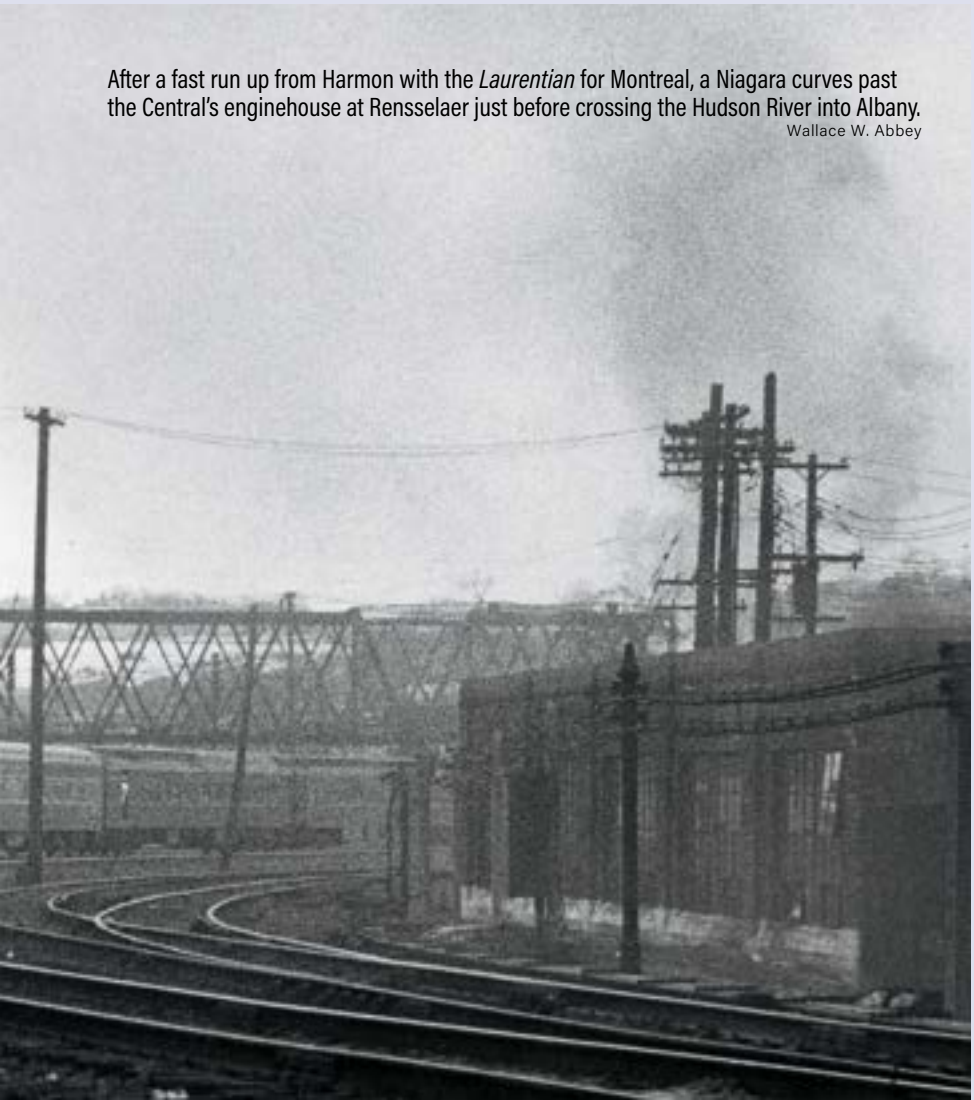
In the roundhouse at Harmon, N.Y., engine 6009 is marked up to go out on train 55; photographer Akin will be in the cab.



The Niagara's 18,000-gallon centipede tender is topped off with water. Next stop: the coal wharf.

The 6009 takes water on the fly from the track pans at Tivoli, right beside the Hudson River. Experiments with overflow vents and scoop design led NYC to develop equipment that enables water to be taken at up to 80 mph.

At the Harmon station, where third-rail electrics turn over westbound trains to steam or diesel power, Niagara No. 6017 gets under way with the *North Shore Limited* to Chicago in March 1946.
Frank Quin



After a fast run up from Harmon with the *Laurentian* for Montreal, a Niagara curves past the Central's enginehouse at Rensselaer just before crossing the Hudson River into Albany.
Wallace W. Abbey

Niagara 6009 nestled between poppet-valve-equipped sister 5500 and Hudson 5328 in New York Central's big roundhouse at Harmon, N.Y. She had arrived with train 52, the *Easterner* from Cleveland, at 3:40 a.m. Now, in the early hours of April 2, 1950, she was being readied for departure on 55, the *Advance Empire State Express*, at 9 o'clock. Roundhouse employees Benny Veellatto, James Lilly, and Leo New made the rounds of the S-1a 4-8-4 as she stood in stall 13, New making mechanical adjustments and the other two greasing her roller-bearing rods and axles.

Fresh from her grooming, 6009 backed out of her stall, turned on the table, took a drink at a water plug, and went to get breakfast at the coaling tower. Then she backed to the ready track with her twin sealed-beam headlights pointing south. She simmered contentedly as her hostler swung to the ground and left her waiting for her crew.

Soon they came: engineer W. Young and fireman W. J. Garity. The grizzly-faced, bespectacled hogger backed 6009 over a curved viaduct across the main line and around until she stared in the direction of Albany, 110 miles up the Hudson River. Train 55 arrived from New York in the wake of electric motor No. 260. Trains out of Grand Central Terminal, 33 miles to the south, begin their runs with electric power, then switch to steam or diesel at Harmon. The motor uncoupled and moved off, then Young backed his 4-8-4 gently through the puzzle switches till she clasped hands with the first of the *Advance Empire State*'s 12 cars.

Then the Niagara, the last word in NYC steam design, was off on her run to Buffalo, north along the east bank of the Hudson to Rens-

This is how 6009's fireman sees the curve at Rensselaer leading to the Hudson River bridge; visible to the left of the interlocking tower is part of Delaware & Hudson's ornate general office building in Albany. Another NYC bridge upriver from this one is used by trains bypassing Albany Union Station, including freights and the *Century*.

Dunkhorst relaxes a moment as he awaits the highball at Canastota, 126 miles west of Albany. He'll be at 6009's throttle as far as Rochester, another 100 miles.

Whenever he gets the opportunity, engineer Dunkhorst inspects his locomotive. Here he's at Syracuse, feeling a bearing to see if it's running hot.

During train 55's Albany station stop, the engineer and fireman from Harmon walk toward the locker room, while the outbound hogger, cigar-smoking Fred Dunkhorst, looks over the 6009.

One year before Akin's trip on Niagara 6009 at the head of the *Advance Empire State Express*, sister 6011 employs her 6,000 h.p. to briskly accelerate the train out of Rochester on April 9, 1949.
John Stroud

selaer, then across the river to Albany, then west on the Mohawk and Syracuse divisions to Buffalo. Her 79-inch drivers revolved at up to 85 mph as Young, and later engineers Fred Dunkhorst and John Smith, fed her steam. The third engineer took over at 3:23 in the afternoon at Rochester, where Dunkhorst brought her in right on the minute. From there to Buffalo, 66 miles, Smith gave 6009 her head and she eased into Central Terminal at 4:27, a full 18 minutes ahead of the carded arrival.

New York Central has 27 Niagara-type engines, including the original class S-1 No. 6000, 25 identical S-1a sisters, and No. 5500 of class S-2a, which uses poppet valves instead of the conventional piston type. The S class was developed in 1944 when Central's engineering department, headed by Paul Kiefer, set out to design an improved 4-8-2. An expanded boiler capacity demanded a four-wheel trailing truck, and so NYC's fleet of 4-8-4s was born. They were built by American Locomotive Co. in Schenectady during 1945–46 and are used in both passenger and fast freight service. Since the last one arrived, NYC has acquired only diesels, save for seven 2-8-4s for subsidiary Pittsburgh & Lake Erie in 1948.

While these are the only 4-8-4s on the Central's roster now, they were not the first of that type on the railroad. In 1931 it purchased No. 800, a high-pressure, three-cylinder 4-8-4 designed by NYC, the Superheater Co., and Alco. It has since been retired. Alas, the same fate awaits the Niagaras, as more and more diesels arrive. But for at least a few more years, the superb 4-8-4s will race up and down the Water Level Route. ■

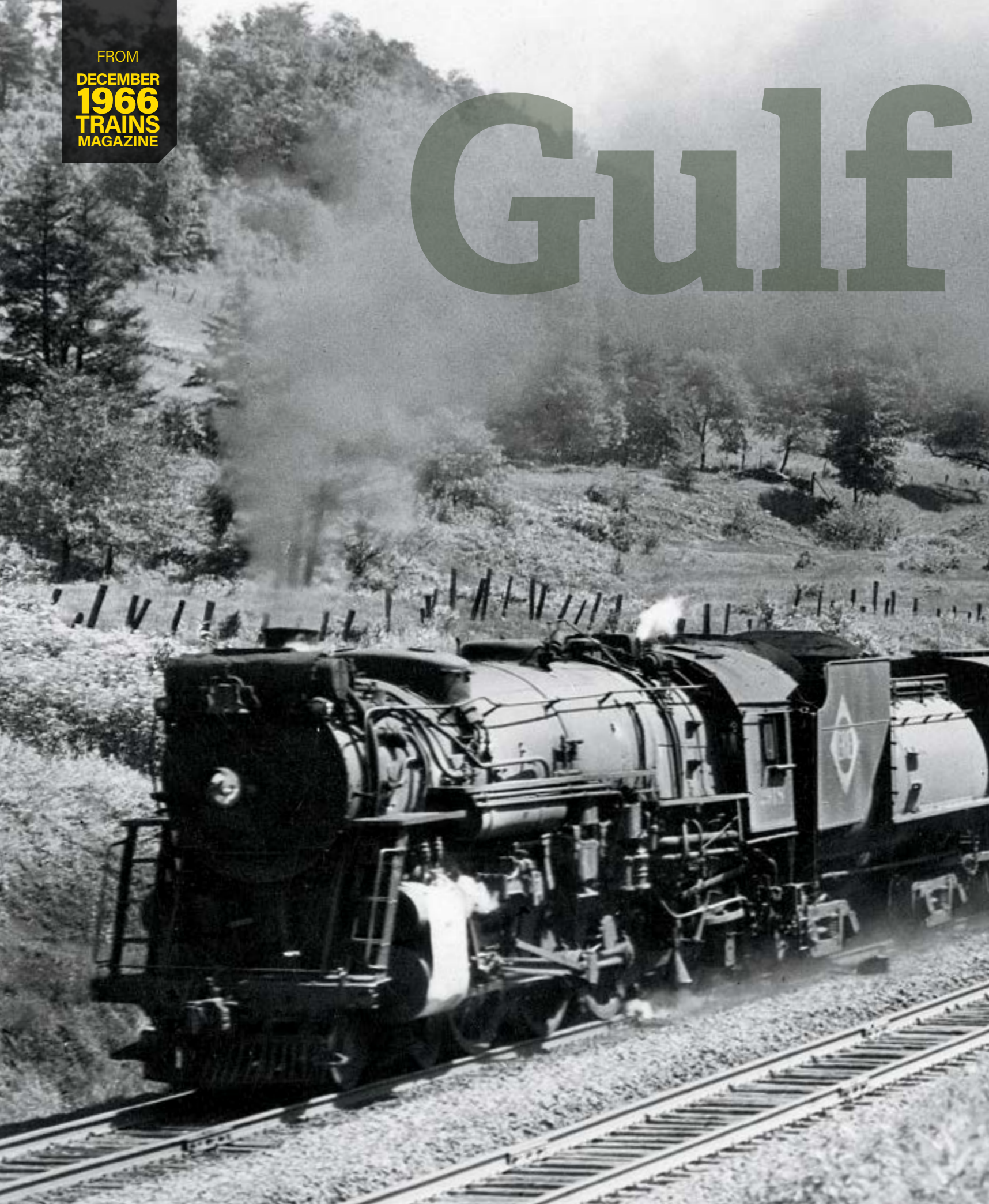
W. A. "BILL" AKIN JR., who made most of the photos for this article, headed Kalmbach Publishing Co.'s art, printing, and sales departments at various times over 37 years. His photos illustrated several Trains *articles in the 1950s. He died in 1985.*

“Nickel Plate High Speed Service”

The famous slogan touting fast freight service that the Nickel Plate Road emblazoned in script on its cabooses was fulfilled by a fleet of 80 2-8-4s built by Alco (15 engines) and Lima (65) during 1934–49. In the northwestern Ohio flatlands that constituted the NKP Berkshires' racing grounds, engine 757 bears down on the Baltimore & Ohio crossing at Leipsic with a westbound freight on February 9, 1958 (the old tower at right is part of the depot). Donald A. Krofta, Jim Semon collection

FROM
DECEMBER
1966
TRAINS
MAGAZINE

Gulf



SIX AND A HALF HOURS ATOP THE ERIE'S TOUGHEST GRADE

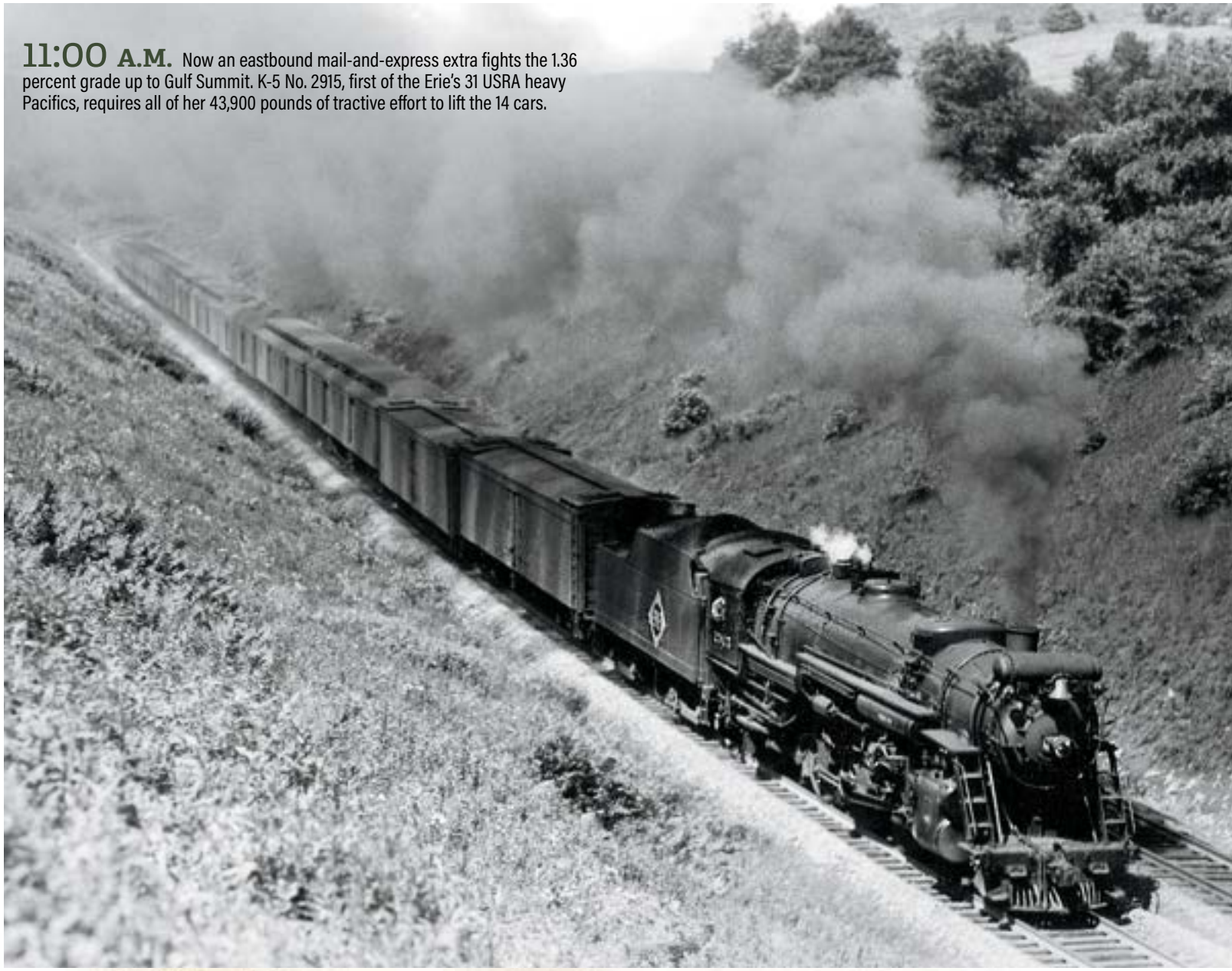
Summit

July 4 1946

Photos and data by **W. R. OSBORNE**

10:15 A.M. A westbound mail-and-express extra led by K-5 heavy Pacific 2918 has topped Gulf Summit and descends toward Susquehanna, Pa. The summit separates the Delaware and Susquehanna river valleys.

11:00 A.M. Now an eastbound mail-and-express extra fights the 1.36 percent grade up to Gulf Summit. K-5 No. 2915, first of the Erie's 31 USRA heavy Pacifics, requires all of her 43,900 pounds of tractive effort to lift the 14 cars.



Erie's eastern challenge

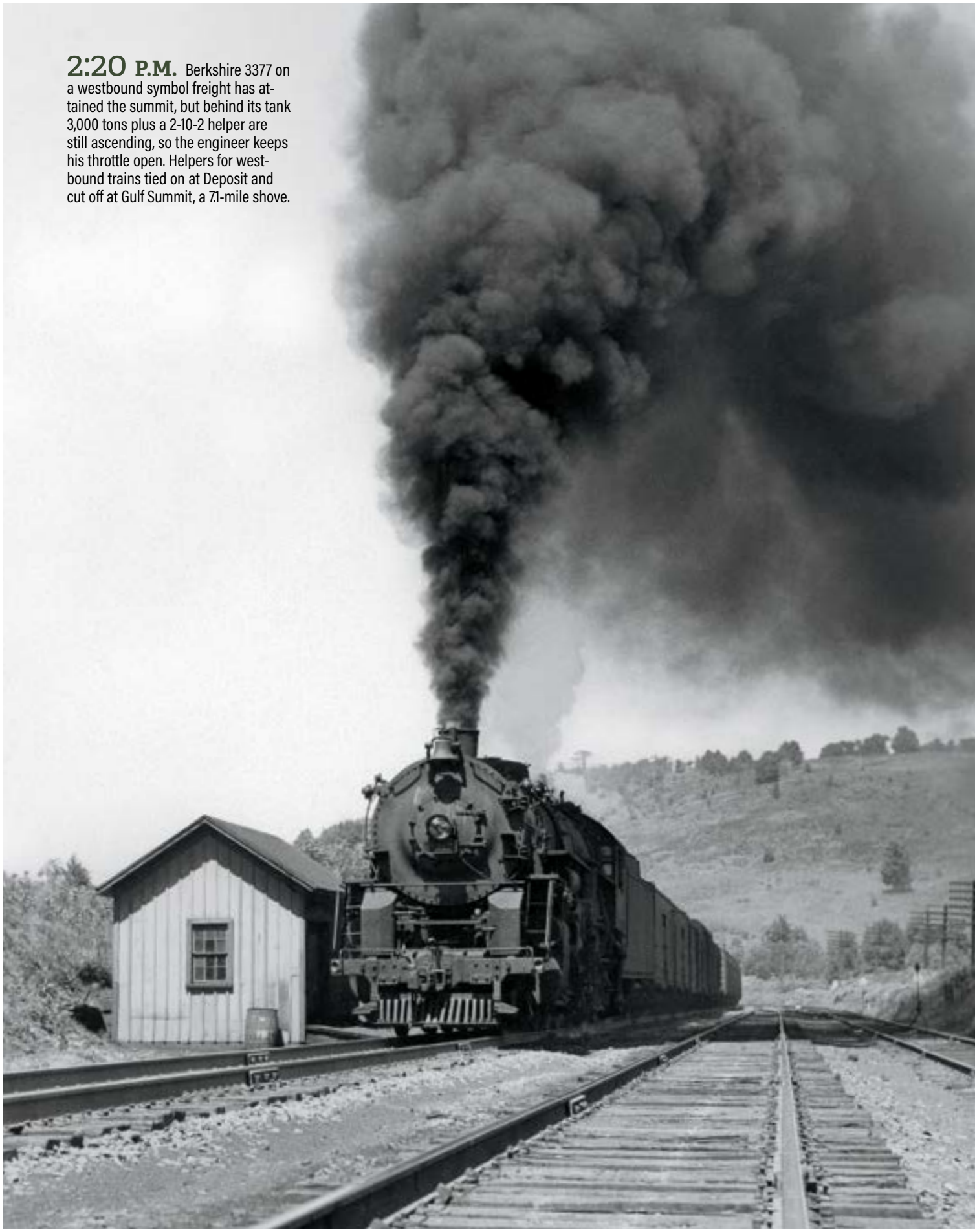
11:45 A.M. Another K-5, the 2923, nears the summit with the 12 cars of train 28, the *Mountain Express* from Hornell, N.Y. The grade at this point is 1.14 percent. Erie was the only road to acquire USRA heavy Pacifics.

12:30 P.M. Smoke from K-1 Pacific 2542 obscures most of an eastbound train of 15 deadheading cars. Erie's first class of 4-6-2s was also its biggest; Alco and Baldwin built a total of 59 K-1's between 1905 and 1908.

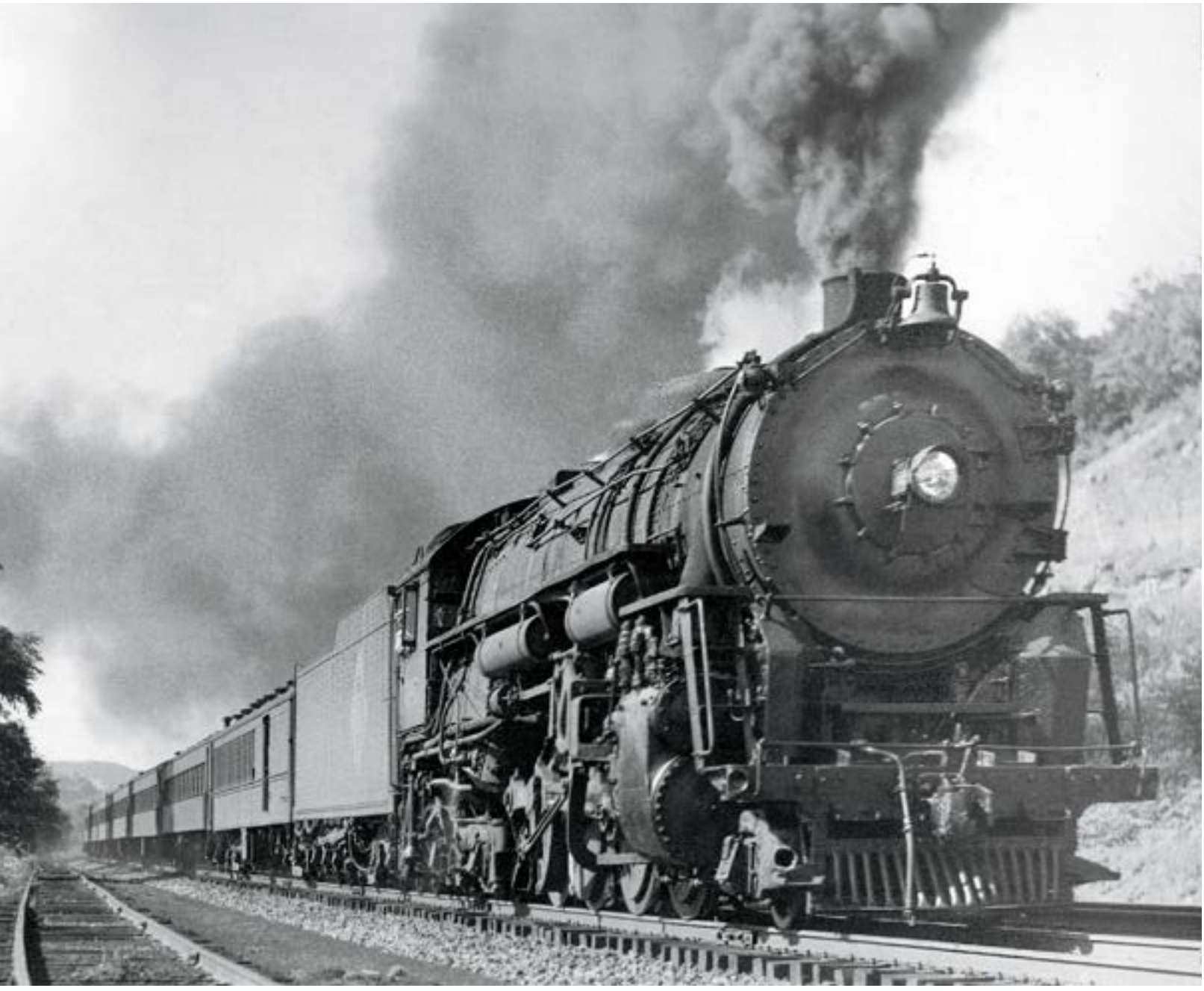
1:09 P.M. K-5-A No. 2940 — upgraded with a one-piece cast engine bed, disk drivers, Elesco feedwater heater, roller bearings on all engine axles, and a 24-ton, 16,000-gallon tender — comes off the summit with the 12-car *Erie Limited* bound for Chicago.

1:38 P.M. Here comes the tonnage! New England-bound hotshot NE-98, with 82 cars totaling 4,800 tons, smokes it up with R-2 2-10-2 No. 4126 and S-3 2-8-4 No. 3368 on the point. The duo packs 165,750 pound of tractive effort including the Berkshire's booster.

1:43 P.M. Still more power is hung on behind the all-steel caboose of NE-98 as another 2-10-2 shares the work. The helper crew has its own wooden hack. The summit is 200 yards beyond the distant curve.



2:20 P.M. Berkshire 3377 on a westbound symbol freight has attained the summit, but behind its tank 3,000 tons plus a 2-10-2 helper are still ascending, so the engineer keeps his throttle open. Helpers for westbound trains tied on at Deposit and cut off at Gulf Summit, a 7.1-mile shove.



3:18 P.M. While photographer Osborne was moving to a new location he missed the passage of train 2, the Chicago–New York *Erie Limited*, but he did catch a 2-8-4 on Second 2, composed mostly of Stillwell coaches.

4:20 P.M. Westbound hot-shot 87, with 90 cars grossing 3,000 tons, drops downgrade behind S-1 No. 3315, from the first series of Erie Berkshires of 1927. An early adopter of the 2-8-4 type, Erie got 105 from Alco, Baldwin, and Lima.

4:40 P.M. The end of a perfect Independence Day of rail photography comes with the appearance of 2-10-2 No. 4111, which helped 87 up the east side of the hill. The Santa Fe type is following the freight down to Susquehanna, Pa., where it will be serviced.

The last true believer

No Class I railroad kept faith with steam longer than the Norfolk & Western, which didn't buy a diesel locomotive until 1955. And no road was a better friend to the 2-8-8-2 Mallet — N&W rostered 227, more than any other carrier, and built them until 1952, decades after the type had fallen from general favor. N&W 2023, pictured at Bluefield, W.Va., in 1958, is a class Y3, one of 50 built for N&W under USRA auspices in 1919. Robert A. Caflisch, Helen Caflisch collection

FROM
APRIL
1976
TRAINS
MAGAZINE

Contin

THERE WAS NEVER A DULL MOMENT FOR A FIREMAN ON PENNSY'S NEW YORK DIVISION IN THE 1940S

Text and artwork by
LLOYD ARKINSTALL

gencies

not covered in the fireman's manual

An old sea chantey that I recall from my Navy days went in part like this: *There were tinkers and tailors and soldiers and all, signed on as good seamen aboard the "Black Ball."*

Well, that chantey could readily have been paraphrased to include the characters of the enginemen's roster when I was a fireman on the Pennsylvania Railroad's New York Division in the 1940s. I fired for ex-acrobats, torpedomen, chicken farmers, unionists, pugilists, military historians, defrocked chiropractors, gamblers, and local preachers.

FIRE AND BRIMSTONE IN THE CAB

George Gearman was an engineman and part-time preacher — or maybe it was the other way around. In the motive-power vineyard, he had labored long and fruitlessly trying to stem our lemminglike movement toward perdition.

I was firing a belt-line runner for George one devilishly hot August afternoon. We were holding at a signal outside Waverly Yard at Newark, N.J., next to the city's old potter's field, waiting for a highball from the Waverly 3 block operator. The day was one of those long exhausting ones when a sweating fireman, looking down at the sodden uppers of his work shoes, may have wondered if sales or some other rational pursuit might not have made for a better lifestyle. By this point I had been contending with one clinker after another and with George's incessant and unbelievably sectarian evangelism for quite a spell.

Now I must digress a moment. If ever old steam firemen have recurrent nightmares, it's highly probable that they involve West Virginia clinker coal. I must have got an entire tenderful that day, and on a nonstoker engine at that. That abomination of all fossil fuels contained an incombustible substance which melted and filtered down through the fire, forming a lavalike, almost ceramic veneer upon the grates. If allowed to continue, this process would seal off the air coming up through the grates and smother your fire. The initial symptom of such impending disaster was a short, dull, reddish-purple flame, which spread like some virulent dermatosis as the clinker under the fire grew. Our "helpful hints for handbombers" booklet, issued by the company, enjoined us to fire lightly, and to rock the grates frequently, in order to break up this veneer as it formed. A certain amount of air would get through the firebed, permitting combustion. These well-intentioned manuals at least served the purpose of giving a frustrated fireboy a focal point for his profanity.

To get back to local preacher and engineman George Gearman, I had managed — by fully cocking the right-rear grate section — to bar up several boulder-size clinkers and was trying to horse them back through the firedoor with the hoe. Now, normally any engineman under 70 years of age would have offered some assistance. But not George. With my third semimolten chunk of the earth's crust poised on the firedoor ring, I looked up at George, only to find him gazing out at the potter's field. Still trying to balance my gaseous clinker, I followed his gaze and saw two worthies lowering a rough board coffin into a newly dug grave, with all the tender loving care of baggage handlers. Still making no move to help me, George, presumably speculating upon the direction the deceased's spirit would take — up or down — said, "I wonder where that poor soul will be tonight."

There was no way I could deflect this bush-league Elmer Gantry from his evangelical zeal.

With that, I lost my head. I pulled my West Virginia meteorite out of the firebox and onto the deck with a crash and snorted, "What the hell difference does it make?" Well, that tore it. Before I could prime the deck hose to douse that clinker, George demanded, "Don't you believe in the immortal soul of man?"

There had been nothing in the fireman's manual to cover this sort of contingency. I did, however, know there was no way I could deflect this bush-league Elmer Gantry from his evangelical zeal. Before George could loose any more fateful lightning, I primed my deck hose and doused the clinkers. The resultant steamy cloud of sulfur dioxide gave me a short respite from George's onslaught and seemed to clear my head. I realized that the pursuit of this conversation would be an exercise in futility.

Providentially, and with inspired timing, the block operator gave his highball and saved me. While George was occupied in lifting the train, I lobbed the doused clinkers back over the tank slope. As our starting exhaust caromed off the underside of Hay Bridge, I noticed that the municipal grave diggers had paused in their labors, not to soliloquize over poor Yorick's skull, but to quaff a can of beer.

OUT OF STEAM ON THE LONG BRANCH

There was a time when a railroadman and his pocket watch were inseparable. The watch was a ceremonial fixture. When a group of railroaders got together, Hamiltons, Elgins, Walthams, and an occasional Illinois flashed in and out of watch pockets. At the time of this incident, my ancient hock-shop Elgin, having weathered three falls, was in for heavy repairs. However, since firemen seldom were consulted for time, I felt no more than half naked without it.

In January 1946, my regular berth was southbound passenger train 723 out of South Amboy, N.J., to Bay Head. This job returned northbound as 726, leaving Bay Head at 7:30 in the evening. Since this was a Sunday, the trains were numbered 787 and 788, but their times remained substantially the same. In the South Amboy enginehouse crew room, instead of finding my regular engineman I found a pall of cigar smoke and finally a compact, white-haired old gentleman in clean overalls who was pulling out his timecard. He nodded as he completed his paperwork. This extra engineman was John E. O'Neill, and the trip south with K4 Pacific No. 3742 was uneventful, and on time.

The Bay Head yard had three or four ancient wooden coaches off their trucks to serve as yard offices and layover rooms. This being a Sunday, with the attendant absence of weekday commuter crews, the neglected office stoves had gone out. Our return consist was made up and heated, so John and I settled down in the first coach of our train for the layover. After eating our lunches, chatting a bit, and perusing the papers, we dozed off.

Sometime after dark, a trainman stuck his head into the coach and hollered, "This 788?"

I happened to be awake and answered, "That's right, mate."

"You guys know what time it is?"

"No, haven't any idea."

"It's 7:20. Let's get cracking."

Needless to say, John and I bounded out of that coach and up to our engine. Its number I recall to this day: 5238, another K4.

We scurried aboard and looked in the firebox. We felt ill right there. Some lout of a hostler had been using the stoker to cover the banked fire. The firebed was thick and dirty and coated with green coal. I raced back up the tank and looked down the manhole. Here was an 11,000-gallon tender with a scant thousand gallons in the bottom. Well, it was spotted right by the water plug, so I swung the plug around, turned on the water, and dashed back down over the coal, which incidentally was halfway back in the bunker. I cracked the blower and opened the fire door. I got down the hook and tried to hoe the mess back. The hostler had blown the stuff up so that the forward openings under the arch were plugged. To make the whole drill stickier, we had a heavy train of 12 coaches and an express baggage car on our tail.

Most K4's in the Eastern region had never been given stokers. Some stoker engines had been brought in from the Midwest, and others had recently been fitted with a Standard HT overfeed stoker, as our 5238 had been. The HT was good, but it entailed a large external casting when it was adapted to a non-stokered engine. The height and bulk of the whole thing made it virtually impossible to hand-fire while underway. A proper hostler, realizing this, after cleaning the fire would bank it hot over the back half of the grate to give you a good working basis. The front end would have only a light covering of ash. Thus the fresh fireman coming aboard would only have to break up the bank a bit and push it evenly over the whole grate in order to be ready to go. However, the ingenious hostler of ours not only had cranked the stuff up using the stoker but had used the jets to spread it over the whole grate. Of course, the stuff that went forward never did ignite but just lay green and thick. The stuff in the rear was dirty and thick and had been lying there unattended for hours. About all I could hope to do in my precious few minutes was to dump part of the front end, slice up the rear end, get her glowing, and push forward. But there wasn't even adequate time for this. So by departure time I had a half-green mess over the entire grate and the front end still plugged.

With a highball imminent, I ran up over the coal, turned off the plug, and swung it clear. The evening wasn't particularly cold, so when I came back I turned off the train heat to save the steam for the engine. Finally, near train time, I noticed John, in the light of one of the gauges, unwrapping a huge Havana cigar. We got the cab whistle and were off.

Now you probably know that one of the areas of compromise faced by every locomotive designer was the size of the steam exhaust nozzle. The smaller the orifice, the more effective the draft and the more violent the exhaust. The attendant drawback, however, was a greater exhaust back pressure. Apparently, the K4 designers at Altoona had been more than willing to go along with a bit more back pressure. Under normal circumstances, I always reveled at the sound of that exhaust. Its explosive bark cannonaded from the walls of cuts and underpasses in a manner that could have crumbled the walls of Jericho. However, on this unhappy winter's night I, in my unprepared state with this sickly excuse for a fire, winced with every blast. And the safety valves were extraneous boiler fittings that night.

To compound matters, the PRR carried a 110-pound passenger brake-pipe pressure and a 130-pound setting on the high-pressure head of the air pump governor. Thus boiler pressure couldn't fall much below 150 pounds without the train brakes creeping on. Well, this unspeakable phenomenon overtook us after less than 3 miles, and we slowly came to an ignominious halt just south of Sea Girt.

I had been shoveling sand against the tide,

and now I couldn't even reach the sand. I had arrived at that classic situation that a long blue-denim-clad line of firemen before me had faced at some time or other in their sweaty careers. While we stood there with the blower hissing like a demented dragon, I "barred and I hoed and I blowed," to use an old-time expression, and grudgingly traded water for steam. Meanwhile, the cross-compound air pump manfully struggled to build enough pressure to release the brakes.

Apparently satisfied that my hectic remedial efforts were not misdirected, my engineman sat on his seatbox regarding me with an almost Olympian calm. John had an "elder statesman" quality about him, a thick white thatch of hair, a square-cut, durable face, and a seemingly unflappable presence. In respectful handling of a good cigar, he was a true connoisseur. I have seen runners who, while they were lifting a heavy train with malfunctioning sanders on drizzly rail, gnawed a cigar into something that should have been covered with a blanket. But with John, cigar handling had the predictability of valve events. There was unwrapping, inspection, revolving, ignition; then intake, holding, exhaust, and approval.

"What the flaming hell is going on up there?" the conductor demanded.

"We have a bit of a steam problem," my engineer replied dismissively.

Somewhere between one of John's exhausts and one of his approvals, the hostile voice of our conductor bellowed up from the darkness below. "What the flaming hell is going on up there?" he demanded.

I was in the act of pulling a cherry-red hoe out of the fire, but with that voice, I felt my passenger-engine career was about to go the way of my steam pressure.

John regarded the voice for a moment, taking another long intake of his stogie. Inclined slightly out of the cab window, backlighted by the firebox glare, John prolonged the last two events — exhaust and approval — and then, in a tone of ultimate dismissal, said to our uptight captain in the darkness, "We have a bit of a steam problem. I'll blow in the flag when we're ready to go."

The presence below stamped back to the train, mumbling I'm sure about firemen who couldn't keep water hot for a barber.

Tying up a line job for lack of steam is a desolate experience. You are the focal point of all censure; your self-esteem as a fireman is badly mauled; and never perhaps until your last hour do you feel more alone. But John had said, "*We* have a steam problem." Here was a runner for whom I would have shoveled clear through the tank slope into the water space, if it could have served any useful purpose.

By this time, through repeated overexposure, my fire tools retained about as much temper as a medical examiner's reflex hammer. Finally with the brakes pumped off and two gauges of water in the glass, John tugged off a hoarse northbound flagman's recall. Judging by the prompt response we received from the rear end, our zealous practitioner of Rule 99 must have been drawbar flagging.

And so we slogged laboriously up the coast. Town after resort town, deeper and deeper into the time bag, platform after platform, we faced increasingly restless natives whose hopes of a connection at Newark had been dashed. My demonstrated ability to heat water still wouldn't have satisfied that fastidious barber, but we did maintain horizontal mobility of a sort. That is, we stopped only at stations.

The prospect of facing Middletown Hill leaving Red Bank filled me with foreboding. Before stokers, with a train of this weight, the fireman remained down in the kitchen in a tail-high attitude until he rested at Middletown. When John shut off at Red Bank, I gave the front grate section a last prayerful rocking and finally opened up the space between the front course of arch bricks and the fire. Then I widened out on the front jets right there in the station, laying down a destroyer-screen pall of smoke.

Then the cab whistle piped departure. John dug into Middletown Hill with those 13 cars without slipping a wheel. I fixed on the steam gauge with morbid fascination. It vibrated in a palsied fashion around 190 pounds. Since we were using water at a prodigious rate, I soon had to cut in my injector to augment John's. But still the gauge held. And then, painfully, it started to gain. Here we were, making steam against both guns. I felt as though I'd been granted a reprieve.

There were three little bridges over the right of way just at the crest of the hill at Middletown. It was as we were passing under one of them that the safety valve finally let go.

Perhaps you will find the idea of a boiler fitting inducing an emotional response farfetched. Men of letters have made much of lonely locomotive whistles in the night, but who but an insurance underwriter would remark on the sound of a lifted safety valve? To me, on that night, the Lost Chord itself wouldn't have been more profoundly moving. And on this joyful note, I bountifully gave the passengers their first steam heat of the evening.

With a full 205-pound boiler pressure to work with at last, John put on a demonstration with that K4 that now would seem to make all the post-steam-era eulogies to this engine almost credible. There is something rather amusing about a hopelessly late train finally coming in like an avenging angel. Our Matawan stop was pure Wells Fargo, with driver tires throwing fire. Then came our last lap; we grudgingly observed slowdowns for Morgan Draw, South Amboy, and the Raritan bridge. We made the WC interlocking, Perth Amboy, and the final sprint to Rahway Junction, where the juice boys would tie on and take the train to New York.

There, lying clear of the crossover dwarf signal and waiting to relieve us of our burden, were a pair of those eternally coupled O1 2-B-2 motors. Muldoon, the cutoff man, who was in the throes of one of his dry stages, uncoupled us in record time. We cleared the crossover for the reverse move; and as we pulled close to the motors, their crew put on a pantomime of watch-examining.

As we loped along home at about 45 mph, I had my first relaxed opportunity to take stock of our situation. Just how far in the bag were we, anyway? I reached for my watch only to realize again that I didn't have it. Looking across at John, riding sidesaddle on his seatbox, I was stunned. For I could see for the first time that John's overalls lacked a watch chain; he too had no timepiece with him!

There was, however, no time for fate-dwelling. After handing off our locomotive, John's farewell remarks were, "I've written up this engine as badly clinkered and steaming poorly. If they call us in, stick to that story."

The epilogue, to use the word loosely, was pure anticlimax; I was never summoned to the road foreman's judgment seat. Waiting for a signal in the Exchange Place passenger terminal at Jersey City some months later, I was hailed from the platform by the unflappable Mr. O'Neill. After a routine exchange of pleasantries, he asked, nodding in the general direction of the road foreman's office in the old terminal building, "Did you ever hear anything about that night on the Long Branch?"

"Not a word," I replied. "Did you?"

As his cloud of cigar smoke slowly disappeared, following exhaust and approval, he said, "No, I never did."

And this time his watch rigging was as prominently in evidence as the suspension cables of the Golden Gate Bridge.

"DAMN LOOSE RAILROADING"

I've always had a fondness for uncontrived understatement. I recall an incident in Waverly Yard on a clear but moonless fall night.

To make the incident meaningful, a word or two on the yard trackage is in order. The "ought track" paralleled the main for the entire length of the yard. (The "ought track," for "yard track No. 0," is the track immediately adjacent to the main. It is often used as a waiting siding for road trains.) Parallel and adjacent to the ought was a house yard which was actually a departure yard. The ought was entered on the east end through Waverly block station No. 5 and was exited through block station 6 at the west end. The house yard ladder, fanning out into the 12 tracks, terminated at the west end and then connected with a manual crossover to the ought track. Track No. 6 in the house yard was a stub track, something of a catchall for misdrills which the old-timers referred to as the "time bein' track."

This particular evening we were batting the whey out of cars down the house ladder with an alacrity that would have made management proud of us. The term "shifting" is a euphemism where the bat-out jobs are concerned. The endless jackrabbit starts and stops involved in kicking those cars sometimes a half mile worked your fire hard enough to prevent a fireboy from atrophying. That night we had a good H9 2-8-0. My engineman was Bill Wollman from Trenton. Bill was a lean, white-haired 6-footer in his mid-60s. He had played semipro baseball back in the 1920s and still was a well-coordinated man. As I said, we were working away smartly, but not out of any particular love for the management. We were hoping to quit early so we could convene at "Waverly 7" for a social evening. (The block stations in Waverly were numbered from 2 through 6. The nearest saloon was naturally known as Waverly 7, and the yard shanty at the house yard was known as Waverly 8.)

As it happened, a westbound road job rumbled up the ought with 50-odd cars, cut off, pulled up to the west end of the ought, and backed through the manual crossover onto the house yard ladder. At the time, we were working on the east end of the ladder and consequently were out of his way, since he was backing into the second yard track to pick up another block of 50 cars. Obviously, for him to return with his new string to the other portion of his train left on the ought would require pulling westward about a half mile. After the hind end of his pickup from 2 had cleared the house ladder, one of our crew threw the switch on 2, realigning the ladder again for our use. However, the crossover from the house lead to the ought was not realigned after the pickup string cleared. Now, since the physical features of the ought and the main at this point made a half-mile lantern relay difficult, I felt this situation would bear watching.

I tried to keep my voice down to a conversational yell: *"Unload, Bill! This guy's coming into us!"*

Well, the brakeman on the hind end of the road job gave his stop signal and finally got his man halted a few hundred yards west of the manual crossover. He then lighted a fusee and started an eastward backdown movement against the rear half of his train. Meanwhile, in the course of our drilling, we took a short string on our nose and backed west on the house ladder to within three or four car lengths of the crossover from our ladder to the ought.

Approaching this misaligned switch, the road brakeman started his ease-off signal in ample time, then gave a stop. The stop signal became more urgent, however, as the train maintained its steady backward pace. The brakeman gave a wild "washout" signal, then in desperation tossed the fusee straight up in the air.

Some decisions require little soul-searching, and this was certainly one of them. In order not to spook my engineman, I tried to keep my voice down to a conversational yell: *"Unload, Bill! This guy's coming into us!"* With that, I went over the right side. I needn't have worried about spooking Bill, whose long legs almost landed on top of me. We both hit running, and we were a good 15 feet in the clear when the smash came.

The hind car of the backing-down road job that hit us was an old wooden Ann Arbor stock car. Fortunately, it was empty. The impact bucked our tender into the air and sent our whole string, engine and all, down the track several yards. After the rasping, rending, and splintering subsided, nothing was heard but water cascading from a jagged gash in the rear of our tank into the great pile of kindling that was all that remained of the stock car. A new sound came soon, however. It was the eloquent profanity of the yardmaster echoing from far off across the yard as he made his way in our direction.

As I stood, still a bit shaky from our close call, Bill regarded the mess with quiet disdain. Finally he said, with a mild note of irritation in his voice,

"That's damn loose railroadin'."

DRESSING FOR SUCCESS

Before the advent of the diesel, there was considerable conformity in the matter of engine apparel and hand luggage. Then, a set of Lee or Carhartt bib overalls and jumper was the equivalent of a Brooks Brothers suit. Cloth caps, being crushable, were practically *de rigueur*. As for outer garments, in chilly weather they were usually Navy-style pea jackets or mackinaws, which gave maximum freedom in climbing about.

In the matter of hand luggage, I recall that the Ball Built luggage company in Newark turned out an engine bag that was customized to fit in a PRR locomotive seatbox. Most of us, however, had the hard fiber suitcase with the metal reinforcements at the tips. It was a rugged little thing, and an occasional varnishing didn't hurt it any. Since a fully qualified engineman in the Eastern Region had to carry six employee timetables plus his rulebook — each of which was roughly an inch thick and weighed possibly a pound apiece — it was obvious that he needed adequate luggage space. These bags were ample enough to hold the timetables, the overalls, gloves, goggles, lunch, possibly first aid supplies, and whatever else the man needed. At the time, men on the extra list led a nomadic life and their engine bag was in effect their portable home away from home. Their to-and-from-work clothing, or deadhead costume, was nondescript as a rule — usually dark and serviceable, many times an old suit being phased out.

In connection with the foregoing, I'm reminded of a raw, cheerless Sunday night in February. I was ordered for a third-trick runner out of Harsimus Cove. The Cove was never a popular yard. It abounded in dangerous close clearances, tight curves, and too much track compressed into too small a space. It finally terminated at carfloat bridges on the Hudson River. To compound the confusion, there was a small engine pit and servicing area immediately behind the tower at Henderson Street. Adjacent to this vest-pocket engine area was a sodden cattle chute that filled the air with its special aroma.

I signed the register, noted the engine number assigned to my job on the chalkboard, and then went out and groped through the drizzle. After a time, I found my engine. I cracked the blower and was barring at the banked fire when an expensive pearl-color Gladstone bag materialized in the gangway. Next appeared a pearl-gray Homburg hat; beneath the Homburg came a suitably weatherbeaten face molded along the lines of a slightly less-acerbic W. C. Fields; then a conservative paisley scarf and the black-velvet lapels of a Chesterfield overcoat followed. Finally, this whole sartorial mirage stood larger than life in the gangway. Not wanting to miss a bit of this phenomenon, I slid my slice bar back into the tank wishbone, sat down on my seatbox, and watched.

The new arrival turned on the train-order light, opened the Gladstone bag, and removed a newspaper. This he placed in the bottom of his seatbox. He then removed his Homburg and placed it carefully in the seatbox. He dipped into the Gladstone again and removed several zippered clothing bags. Each of these contained hangers. Another probe into the Gladstone produced a clean set of engine overalls, cap, gloves, and appurtenances. Ten minutes later, all his finery was securely zipped into the clothing bags and hung up along the boiler head, and he was togged out in clean engine costume.

An expensive pearl-color bag materialized in the gangway, followed by a pearl-gray hat and the black-velvet lapels of an overcoat.

He proved to be a good engine handler, a good conversationalist, and all in all, the night wore well. In his conversation it developed that he was a bachelor in his 40s. Not only had he made his peace with the idea of bachelorhood but he rather preferred it that way.

A wind shift in the predawn hours changed the weather entirely, and our return to the Cove was pleasant in the early-morning sun. Once we were on the pit, the entire zipper-bag transformation sequence worked in reverse. I remember walking into the morning sunlight down Henderson Street toward the Hudson & Manhattan tubes.

Henderson Street, in its uniform drab grayness, resembled something out of Hogarth's *Gin Lane*. It served as a foil for my engineman's magnificence. We parted at the H&M station, where he fused with the group of commuters bound for New York's financial district, looking for all the world like a board chairman returning to his executive suite.

LLOYD ARKINSTALL was a PRR fireman from 1942 through 1950, with two years out for war service with the Navy, then made a career as a commercial artist practicing in New York City. He was one of the founders of the Black River & Western tourist railroad in New Jersey. The vignettes in this story, the first of five to appear in Trains *during 1976–82, were recorded on tape and transcribed during 1972-73 by the late Bill Withuhn and his wife Gail. Arkinstall died in 1992.*

Ten

days in March

A SOUTHERN CALIFORNIAN FINDS A PARADISE OF STEAM AND SNOW ON THE RIO GRANDE NARROW GAUGE

By **TOM GILDERSLEEVE** ▪ Photos by the author

Wednesday, March 13, 1963

K-36 Mikado 483 kicked off my ten-day adventure. Displaying evidence of the conditions it encountered on Cumbres Pass, it reposes in front of the Chama enginehouse late at night after arriving with sister 480 from Alamosa with a flanger train. The town of Chama itself was devoid of sound as only fresh snow can muffle it. The only noise in evidence, audible throughout the town, was the high-pitched whine of the turbogenerators on the two locomotives.

My first encounter with the Denver & Rio Grande Western's narrow gauge lines was in fall 1960, by which time the operation constituted the last surviving major steam-powered railroad in the United States. Prior to that time my lack of enthusiasm for outside-frame steam locomotives had placed it at the bottom of my hit last, but that one trip flipped my attitude 180 degrees. Here was a 100-percent steam operation through 300 miles of magnificent country that included a spectacular mountain pass; doubleheaders and helpers were common. Further, it was snow country, providing some of the most spectacular winter operations anywhere. My first visit to the terminal at Chama, N.Mex., was right after the area was blanketed with snow; from then on, all my trips to the narrow gauge involved a quest to photograph steam in the snow.

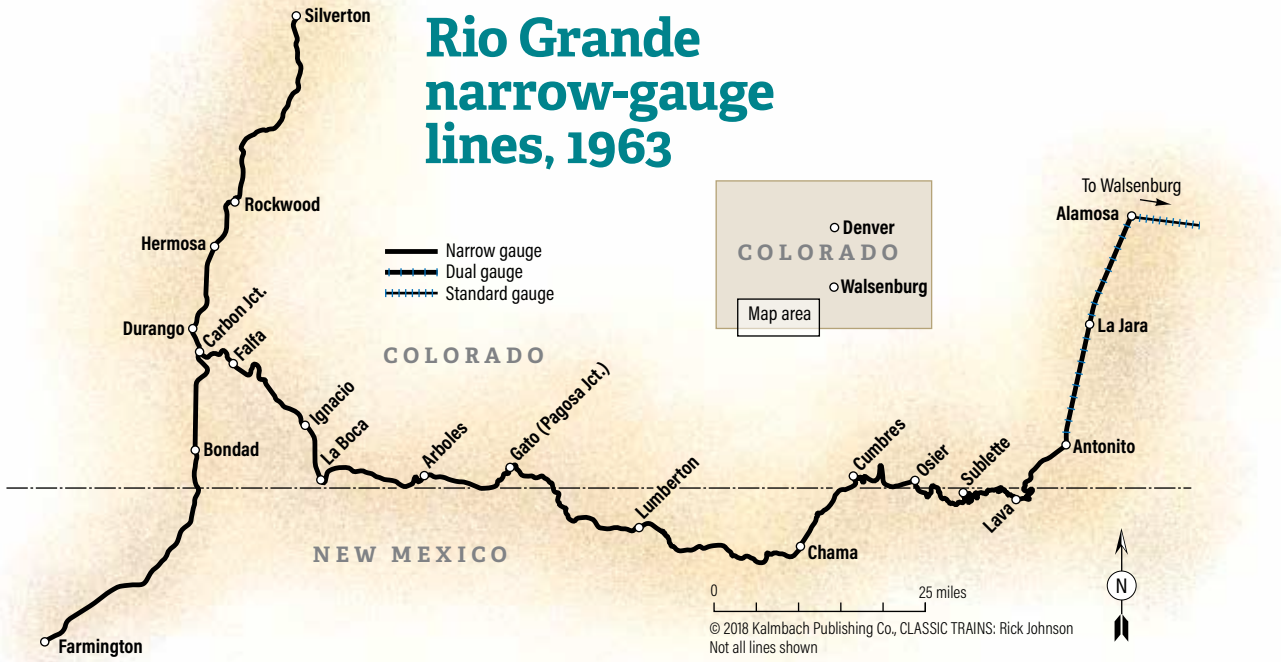
I was released from three years of active duty in the Air Force at Wright-Patterson AFB in Ohio at the end of February 1963, and as I worked my way west toward my family home in Santa Ana, Calif., I made a number of detours to photograph steam operations. I arrived at the Iron Horse Motel near the Colorado Railroad Museum in Golden, Colo., about 10 miles west of Denver, in the middle of a snowstorm on Tuesday, March 12. My intent was to strike out for the Rio Grande narrow gauge along the New Mexico border from there in the hopes of capturing some wintertime steam action.

The following morning, fresh snow was everywhere around Golden and most of Colorado as well, but Bob Richardson, the resident expert on the Rio Grande (and cofounder of the museum, in 1958), told me that it looked pretty bleak down on the narrow gauge. Almost nothing was running, and he anticipated that the end was near for the railroad. Just to be sure, he phoned the roundhouse in Alamosa for me. He received the amazing news that a flanger train had just departed for Chama. What followed that information was a 300-mile drive in fresh, unplowed snow to begin a ten-day experience that was as close to steam paradise as I have ever gotten.

TOM GILDERSLEEVE, retired from a civil engineering career, is a widely published rail photographer living in Santa Clarita, Calif. He's had numerous photos, and three previous articles, in Classic Trains *publications.*

Thursday, March 14

With fresh snow everywhere, Mikados 480 and 483 position themselves to take water from the ice-encrusted Chama water tank before heading east with a flanger train. Only 24 hours later, all the snow was gone from these yards as the result of a 100-mph windstorm that hit the area on March 15.



The flanger train hits the first grade crossing out of Chama with No. 483 on point and No. 480 pushing. Although this is the return move of the flanger train, power is not wasted. Eight tank cars have been added to the consist to be taken up to Cumbres and left for a freight train that will follow.

Having crossed Lobato Trestle, the train progresses up Cumbres Pass. Drifted snow on the road in the foreground blocked further highway access east of here, which meant this is as far as my 1962 Chevrolet would get on Cumbres this day. So I returned to Chama, removed the tire chains, and drove 170 miles over Wolf Creek Pass to the north to intercept the train at Antonito, 64 rail-miles from Chama and the next point on the line reachable by car.

The flanger/tank-car train is about 4 miles out of Chama and 1.5 miles short of Lobato Trestle as it swings away from Route 17, visible at left. In 1963 this was a dirt road not normally maintained in winter, with almost no traffic at this time of year. The tracks in the snow are from my auto, its tires chained up to navigate such conditions.

When the train, now without the tank cars, arrived at Antonito, it had to wait for a standard-gauge, diesel-powered freight from Alamosa to clear. With that train standing at the station in the distance on the remnant of the abandoned line to Santa Fe, N.Mex., the flanger train storms out on the dual-gauge trackage to Alamosa.

As the setting sun prepares to dip below the horizon, the locomotives of the eastbound flanger train are silhouetted against the sky between Antonito and Alamosa. It was a fine end to the first full day of photography during my ten-day narrow-gauge adventure.

Saturday, March 16

The March 15 windstorm made photography essentially impossible, but the 16th was calmer. That morning, Nos. 484 (front) and 480 (pushing) are about a mile out of Chama with an 8-car "hill turn." The 4-percent grade of Cumbres Pass precluded taking full trains east from Chama, so cars were moved in groups up to Cumbres and reassembled into a train.

While the two K-36s made hill turns to the east, K-37 No. 491 took a freight west out of Chama, seen here picking up two cars at Lumberton. The snow piled up on the front of the 2-8-2 was not there when it left Chama, and must have made for an interesting scene when the locomotive plowed into it.

Engine 491 picked up a helper, sister K-37 No. 492, at Gato. In this view the two locomotives roll off the only well-ballasted high iron on the entire D&RGW narrow-gauge system at the west end of the 1958 Navajo Dam line relocation near Arboles.

The westbound doubleheader is working hard as it passes through Ignacio. Engine 492 will be cut off at Falfa, the top of Florida Hill, and run light down to Durango. The 491 will leave most of the train at Carbon Junction for delivery to Farmington, N.Mex., the next day, then head into Durango.

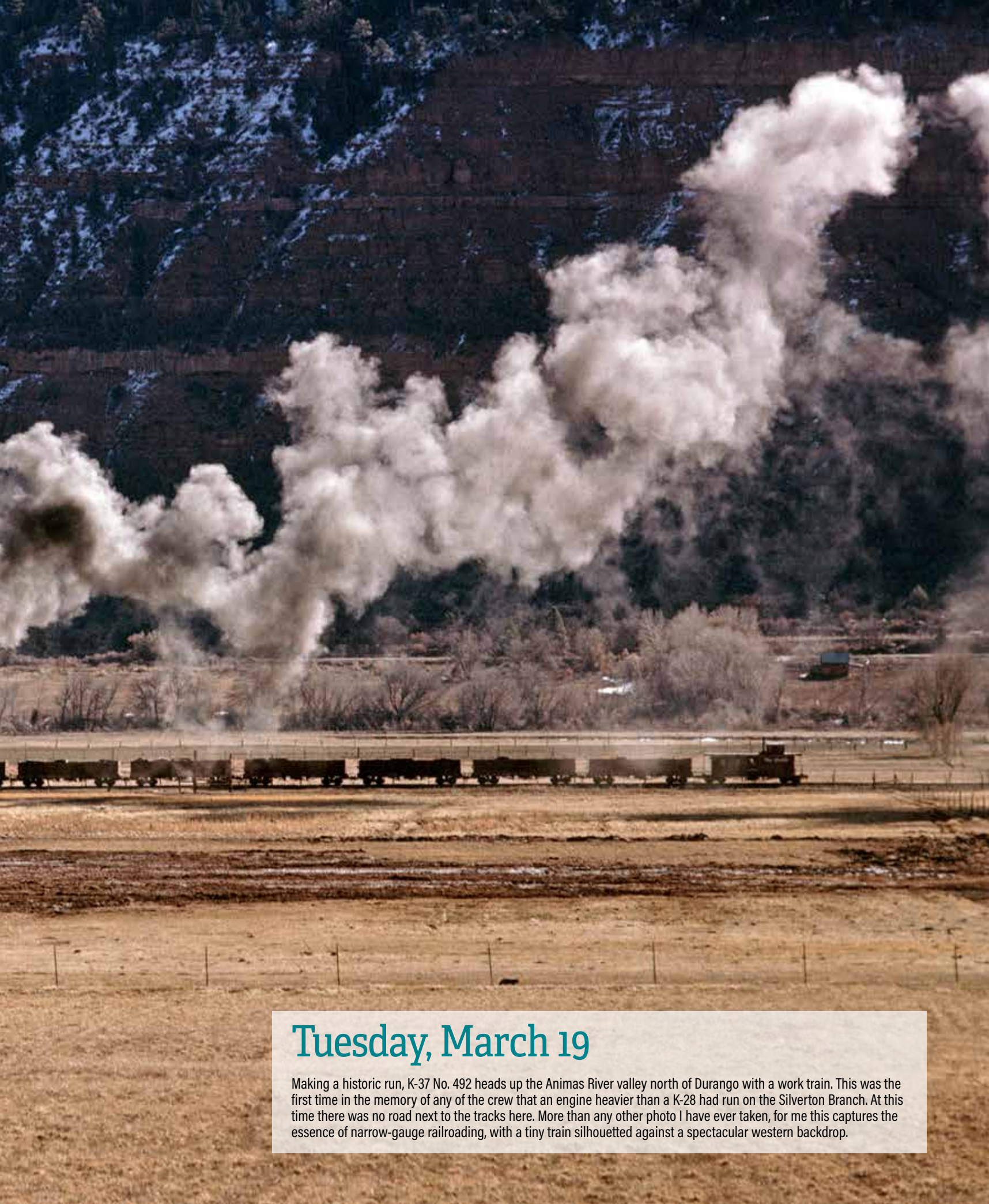
Monday, March 18

After a day of rest on Sunday, March 17, the railroad returned to work on the 18th. Here No. 492 departs Durango as a caboose hop on its way to pick up the Farmington train at Carbon Junction. Fresh snow has hit the area, and the Durango yards as well as the north end of the Farmington Branch are dressed in white. A corner of the roundhouse, home to the Silverton Branch's K-28 Mikados, is at right.

Fresh snow is abundant on the north end of the Farmington Branch as No. 492 heads south with its consist. The 490-series K-37s, heaviest engines on D&RGW's narrow-gauge lines, were rebuilt from standard-gauge 2-8-0s in the 1920s.

It's late in the afternoon as northbound No. 492, returning from Farmington, crosses U.S. highway 550 near Bondad. By now the crew is used to having a photographer chasing them everywhere, and a friendly wave comes from the caboose cupola.

Dusk is settling in as the northbound train crosses the timber trestle south of Carbon Junction, nearing the end of its run back to Durango. The sixth day of the ten that I spent on the narrow gauge has been another good one.



Tuesday, March 19

Making a historic run, K-37 No. 492 heads up the Animas River valley north of Durango with a work train. This was the first time in the memory of any of the crew that an engine heavier than a K-28 had run on the Silverton Branch. At this time there was no road next to the tracks here. More than any other photo I have ever taken, for me this captures the essence of narrow-gauge railroading, with a tiny train silhouetted against a spectacular western backdrop.

Earlier in the morning on Tuesday the 19th, the K-37 heads north out of Durango with the work train. The station, yard, and roundhouse are just out of view to the left. Come summer, K-28s pulling yellow coaches full of tourists to Silverton will ply these rails.

The railroad's intent had been for No. 492 to wye at Rockwood for the return trip to Durango, but snow and ice conditions north of Hermosa rendered that impossible, so the 2-8-2 swapped ends with the caboose and ran tender-first all the way back to Durango at the end of the day. En route back, it does some switching at Hermosa.

Wednesday, March 20

On Day 8, I drove east toward Alamosa in anticipation of another westbound flanger train, which I found south of town. Powered by locomotives 483 and 480, it curves west at the Antonito station in a spectacular display of smoke and steam.

About two hours behind the flanger was a freight with Nos. 497 and 484, seen rolling nicely on dual-gauge track toward Antonito. From there I again drove to Chama to catch the two trains arriving. They didn't show up, although the 491 came in with a freight from Durango.

Thursday, March 21

All day on the 21st I waited in Chama for the arrival of the two trains that had left Alamosa the previous day. Finally, as the sun was setting, I started stringing wire for a night photo lit by flashbulbs. I did not finish the job before the flanger train showed up, but I had done enough to enable this photo. The freight with 497 and 484 arrived soon afterward. Both trains had encountered snow and ice conditions that were difficult in the extreme, and had derailed and been rerailed a number of times. Note that the positions of the flanger and Jordan spreader are reversed from where they were at Antonito. It had taken 36 hours to cover the 92 miles from Alamosa.

Friday, March 22

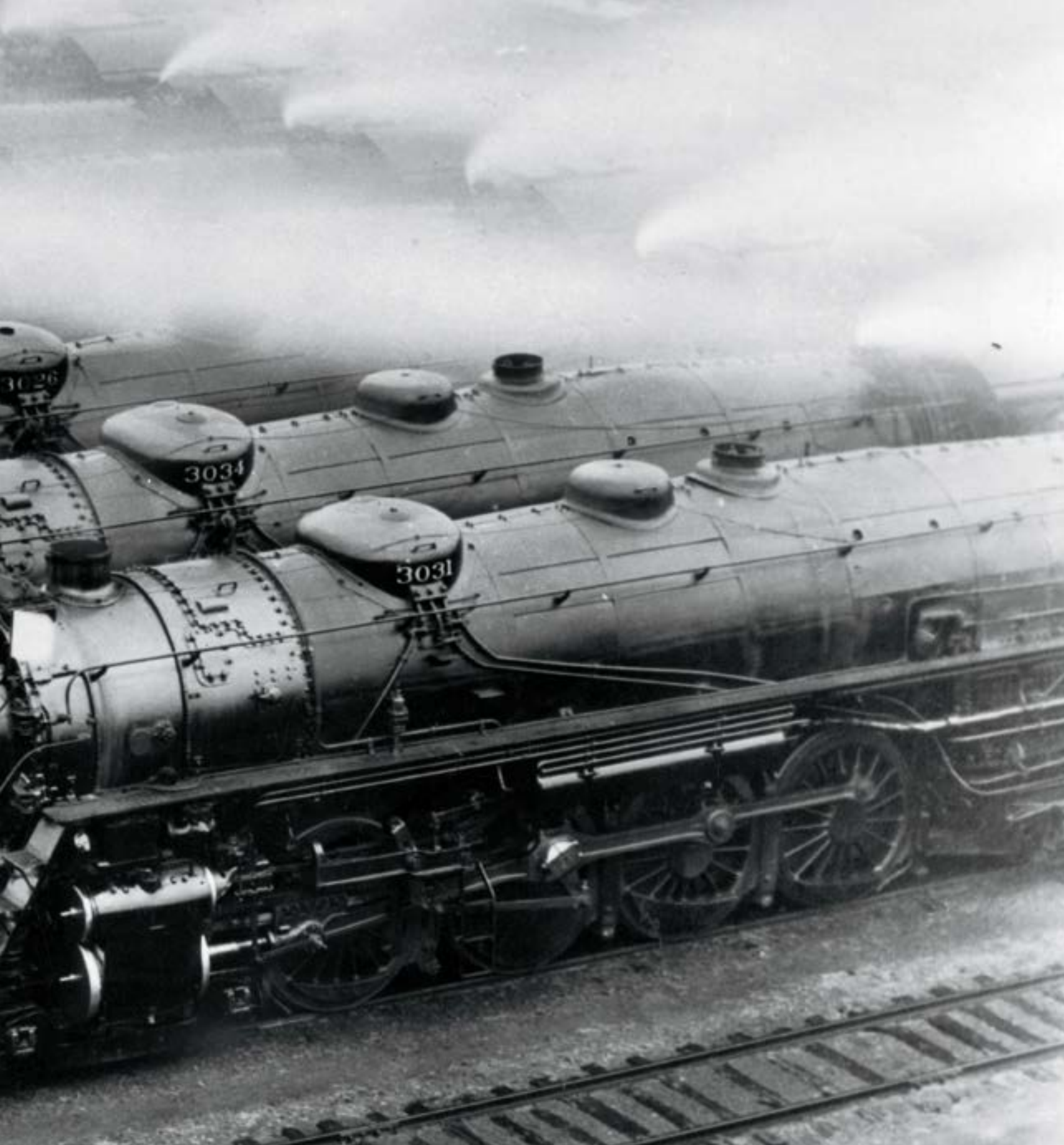
Repeating the procedure I witnessed at Chama on March 14, engines 483 and 480 set out for Alamosa with the flanger equipment plus eight tank cars to be set out at Cumbres. This time snow conditions were more favorable than before, and I made it to the second grade crossing east of Chama, where I got these coming and going shots. A freight train led by No. 497 followed later. Today, the Cumbres & Toltec Scenic Railroad steam trains run between Chama and Antonito — but not in winter.

After the sequence on Cumbres Pass, I once again made the long drive east to intercept the flanger train. Having dropped the tank cars at Cumbres, the train rolls up the broad San Luis valley on the dual-gauge trackage between Antonito and Alamosa.

Dusk is starting to settle in as the flanger approaches the outskirts of Alamosa. One of the crewmen is out on the rear caboose's platform taking down the markers in anticipation of tying up at the terminal.

In a fitting climax to the adventure, the flanger train eases into the Alamosa yard with a golden sky in the background. At this point, it was time for me to head west for further adventures in Washington and British Columbia.

North Western's "Zeppelin" 4-8-4s



Comparing them to another impressive conveyance of the age, Chicago & North Western touted its 35 class H dual-service 4-8-4s as "Zeppelins of the Rails." Built by Baldwin in 1929–30, they were among the earliest Northern types, yet they were also among the heaviest, with an engine weight of 249 tons. They weren't perfect, though, and C&NW rebuilt 25 of them (to class H-1) in the late 1940s. Any flaws in the H's design are not apparent in this 1937 lineup in Chicago. C&NW

Author Thrall beams proudly from the gangway of a Union Pacific 4-8-2 Mountain type. Initials below the "7" show that the engine is assigned to UP subsidiary Los Angeles & Salt Lake.
Walter Thrall collection

FROM
JANUARY
1958
TRAINS
MAGAZINE

A railfan goes railroading

HOW A YOUNG MAN, IN LOVE WITH STEAM AND STEEL, PUT ASIDE HIS CAMERA ONE MORNING IN 1941 AND WENT FIRING FOR THE UNION PACIFIC

By **WALTER THRALL**

I have been interested in railroads for as long as I can remember, and that goes back to the 1920s. My passion consisted of more than photographing railroad subjects; I was a watcher and a listener and everything else that qualifies a railfan as a true devotee of railroading. Indeed, I secretly aspired to being a locomotive engineer. But when I was graduated from high school in 1937, the railroads were doing well to recall manpower that had been laid off, so it was unheard of to hire new blood. I had to be content on the sidelines.

Then in the summer of 1939 I got a railroad job — as a coach cleaner on the Southern Pacific at Los Angeles. Extra help was needed because the *Daylights* were running in sections to the Golden Gate International Exposition at San Francisco. The job paid me 43 cents an hour from 7:30 p.m. to 3:30 a.m., and it was hard work. But at last I was working on the railroad. I steam-cleaned trucks, mopped floors, and polished the exterior of that streamliner. But in the fall, after the fair closed, business declined, and I was laid off. So I went to college for a while, with many a weekend spent at the SP, Union Pacific, or Santa Fe yards taking pictures to add to my collection.

How well I remember that warm, bright Sunday in February 1941. I had just photographed a UP Consolidation at work on the lead when her hogger called down to me, "Hey, kid, if you like the railroad so well, why don't you go firing? They're hiring student firemen now!"

Bright and early the next morning I was camped outside the division superintendent's office on Hunter Street. It seemed like I had waited for hours before I was ushered into the inner sanctum to stand trembling before kindly, gray-haired Superintendent H. H. Larson, boss of UP's Los Angeles Division. He probed and questioned and seemed surprised that I wanted to be a fireman rather than a trainman. Finally he called in his chief clerk and told him to give me the necessary papers to fill out. At the master mechanic's office at East Yard I was given more forms to complete, and still more at the chief crew dispatcher's office. Then there was a long trek to the medical examiner's office, where three doctors gave me every kind of test, including several for color blindness. At last the chief examiner proclaimed, "Well, son, I see no reason why you can't start making your student trips."

"Hey, kid," the hogger said, "if you like the railroad so well, why don't you go firing? They're hiring firemen now!"

Promptly at 6:30 a.m. on March 5, 1941, the regular fireman on yard job No. 1 was hosing down the deck of old 4233, a veteran Los Angeles & Salt Lake 0-6-0 of 1905 vintage. His attention was arrested by a tall, skinny, grinning youth standing on the ground in brand-new overalls, new cap, new gloves, and with new lunch pail — me. I awkwardly climbed up into the cab and tried to make myself heard above the roar of the blower, but my introduction was unnecessary. It was obvious I was another student fireman.

It didn't take the crew long to sense my eagerness to learn how to fire an oil-burning engine and we became friends. It seemed to me that a fireman needed at least six hands: work the injector; blow out the water glasses but don't burn anyone on the ground; ring the bell over the crossings; keep that fuel oil at 160 degrees and don't boil it over; blow out the boiler; watch the pin-puller for signals; keep the water at half a glass; don't let her safety valve pop; don't let her work water; watch that steam gauge . . .

We ended the shift by having the No. 3 drivers climb the rail and bounce along a few ties before we got stopped. Needless to say, this was a harrowing experience.

My first four days were spent on the switch engines around East Yard; the fourth day I spent on a 6000-class Consolidation that seemed twice as big as the little 0-6-0s. By this time I was gaining more confidence and champing at the bit to make a mainline trip.

On March 11 I went out on the 6085 with the Anaheim local. We made a swift trip on the main line for about 5 miles to Whittier Junction, then went down the branch toward

East of Manuel on UP's San Pedro Branch, 2-8-2 No. 2729 crosses the Los Angeles River with a 22-car train taking homeward-bound troops from the harbor to Camp Anza in Riverside on February 8, 1946. The 2-8-2 is officially a "MacArthur" type, UP having shunned the usual "Mikado" moniker after Pearl Harbor.
Walter Thrall

Anaheim a-rockin' and a-swayin' through Whittier, La Habra, and Fullerton at 20 mph, switching packing houses along the way and passing through picturesque orange groves.

The branch was all up and down, and a new fireman had a time trying to figure where to carry his water. The highlight of that trip was the old air-actuated turntable at the end of track at Anaheim. It was a source of pleasure to balance the old 6000s just right, then hook up the table's air line to the engine. The air from the engine would actually kick the turntable around. It was an art to line up the rails correctly and then signal the hogger to ease the engine off the table. As each wheel came off, the table would jump.

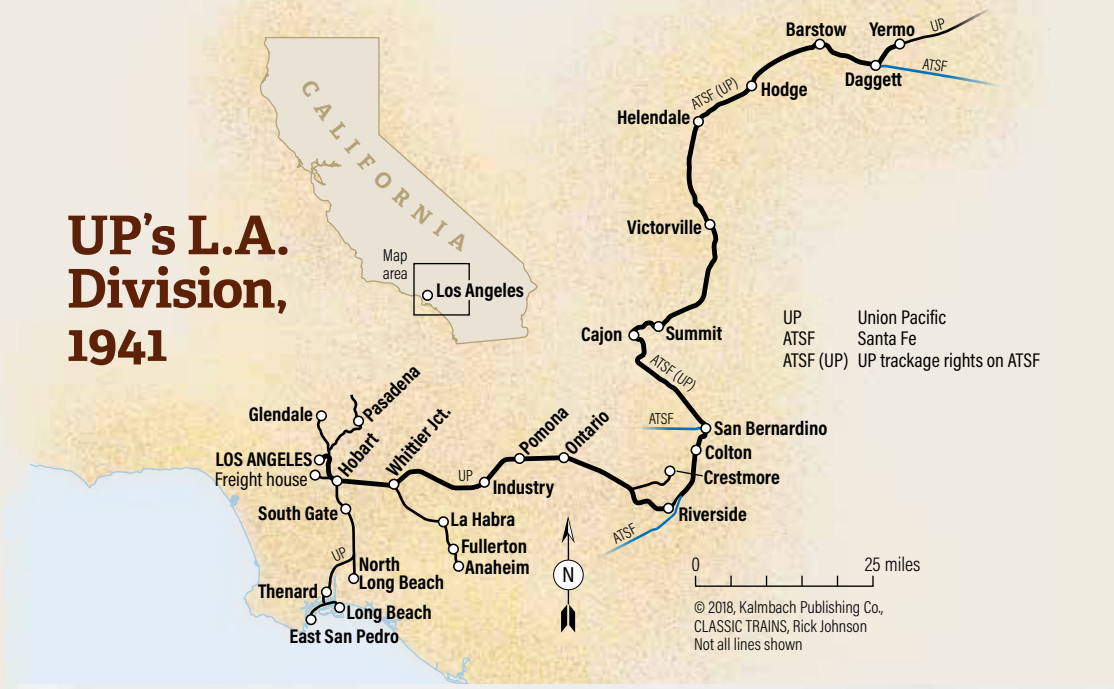
The handsome 6085 had one of the prettiest whistles I have ever heard, and old John Spencer did a grand job of blowing it. This trip was my initiation to working nights, and a fireman had too much to do to even think about getting sleepy. Besides, I was anxious to get another taste of the main line, even if it was only for the 5 miles back to East Yard.

I was called out March 13 for a trip on the San Pedro local on 2-8-0 No. 6080. We left the yard at dusk in a pouring rain with a helper on the rear to aid us out of the yard past Hobart Tower, where we crossed the Santa Fe. Engineer Montgomery was an old Salt Lake veteran, and that 6080 was a rough-riding hog. He got a good run to make it over the Los Angeles River trestle, and as we roared over, it looked like the water was just under the ties. I was scared!

After another trip on the Pedro local I was called for the local officially known as the FPU, or Fruit Pick-Up. I wasted no time getting to the roundhouse that night. It was main line all the way to San Bernardino with a 2-8-2 — which looked as big as a Mallet to me after being on the little 2-8-0s.

My instructor on the run was new to the UP but experienced. He was off a Midwestern road, so he wasn't too familiar with the line. The local switched all the citrus packing houses between East Yard and Riverside besides dodging the mainline trains, and it rarely made the 68-mile trip in less than 12 hours.

I remember that night with engineer Oscar Bumcrot and two new firemen. In those days we had the old lower-quadrant semaphores, and we couldn't tell an order board from a block signal! But Oscar was patient, and we did manage to keep No. 2714 hot. Between stations Oscar really flew, trying to keep out of the way of the hotshots.



Thrall found LA&SL veteran 2-8-0 No. 6080 to be a rough-riding hog on a trip down the San Pedro Branch that included a harrowing crossing of the Los Angeles River when it was a rain-swollen torrent.
Walter Thrall

Westbound the next night the crew went to beans at Pomona and I stayed on the engine. I had my lunch pail with me, and besides, in those days a student fireman didn't get paid while he was learning. The local ran at that time as No. 257, a third-class train on the timecard. Suddenly I noticed a headlight on a train approaching from the west. The engineer dimmed his light, and I noticed he was carrying green signals and his indicators showed 1-262 — the first section of train 262. He whistled a long and two shorts to me. The crew at the beanery also heard First 262's whistle and their hearts sank. They were sure I wouldn't know what to do, and First 262 would have to stop for failing to receive an answer to his signals. But being a railfan, I knew just what to do. I answered with two shorts on our whistle. You can imagine my crew's joy when they heard me respond.

On March 19 I was called for the Pasadena–Glendale local freight, with engine 6085, at 6 a.m. As UP tracks did not reach Glendale, we took our cars up the SP main line to Arroyo Junction, where electric motor No. 100 awaited us. The operator here was originally the Glendale & Montrose, an interurban; when UP acquired the G&M it retained electric operation.

We set the 6085 into Delay siding and traded engines. That was when I discovered that the fireman didn't get to sit in the cab. He rode the rear deck and held the trolley pole line as the local made its way up the middle of the street in Glendale. What a time I had trying to hold the trolley on the wire — especially backing up over switches. Soon after I made this trip, diesels replaced both steam and electric on this branch. The overhead wire was torn down and motor No. 100 was sent to the UP's interurban subsidiary at Yakima, Wash.

March 21 was the Big Day. I was called for a manifest to Yermo, 161 miles east — all main line, over Cajon Pass! Engine 5527 was a big handsome 2-10-2 with 63-inch drivers and a Coffin feedwater pump. Her regular fireman was tickled to have a student along; he could take it easy and ride out the trip on the sandbox in the cab. I quickly learned that a high-speed mainline run was a lot different from the easygoing yard and local runs. The pace and the consequent tension the crews are under make it real work. This was particularly true on the single-track main line between Los Angeles and Riverside

Junction, where our line joined the double track of the Santa Fe. We ran on the Santa Fe over Cajon Pass to Daggett where UP single track again resumed to Yermo and on to Las Vegas and Salt Lake City.

Learning to fire a big 2-10-2 on fast freight was a task in itself. Then there was savvying the many train orders: knowing who had right of track at meeting points; watching the timecard for opposing first- and second-class trains; remembering that when a following first-class train was overtaking us we had to be in the clear not less than 10 minutes before the train was due, and that for the streamliner *City of Los Angeles*, we had to be clear for not less than 15 minutes. And so it went.

In the cab of a big 2-10-2 laboring at 15 mph, even a short tunnel is a deafening, choking, burning-up ordeal.

As we approached a water stop at Ontario, my instructor told me there was nothing to it. "Just keep a big fire going with lots of blower and your water pump on to fill the boiler, and signal the hoghead to stop when the plug is opposite the manhole!" I can remember trying to hold on and balance myself on the narrow deck of the Vanderbilt tender with the water plug hook in one hand as the engineer deftly brought the 70-car train in slower and closer to the plug. At the back of my mind were the tales of firemen who had fallen off tenders and badly crippled themselves.

We made a perfect spot. Then I had to reach out with the hook, release the latch (which often worked hard), and swing the big pipe over and down into the manhole, then stand on the little step while the tender filled with 8,000 gallons of water in 4 minutes. I learned to ease up the lever in plenty of time so the terrific pressure from the plug wouldn't send a geyser of water up and over the fireman when the tank was full.

The steady two-hour or more climb up Cajon Pass offered the engine crew a respite from the tension. As the grade became a steady pull, the hoghead set his Johnson bar based on his back-pressure gauge and the fireman could set his fire accordingly; nothing had to be changed until Keenbrook, halfway up the hill, where it was always necessary to stop for water. At this point a fascinating drama took place.

It was the usual practice for eastbound freights to have a helper engine in the middle of the train and one or two cut in just ahead of the caboose. All the engines would need water at Keenbrook, and plugs were provided in three locations. (A few of our engines at that time had 18,000-gallon tanks and they alone could run Keenbrook.) The engineer on the point would ease down on his throttle until he was letting the helpers slowly push him to his water spot. Then he would set the train air brakes and blow one long on the whistle. At this point, the brakeman would cut off the middle helper, which in turn would back to a spot at the center water plug and set the brakes in his portion of the train, indicating such by one long blast of his whistle. Then the conductor or swing brakeman would cut off the rear helper and it would move back to the west water plug. All of this took place around an S curve on the side of the mountain. Finally, when the two rear portions of the train had been recoupled, they would signal to release brakes with two long blasts, which the head brakeman could hear only by stationing himself quite a distance behind the lead engine, which usually had its blower going. It took experience for the engineer on the point to know when his brakes had released sufficiently for him to start his train in a manner not to

Mountain type 7862 rushes past the station at Ontario with a long eastbound *Pacific Limited* in 1945 or '46. The raised train-order semaphore suggests the fireman is leaning out the left side of the cab, ready to snag orders on the fly. On his first big road trip, Thrall learned some things here about taking water.
Union Pacific

The head brakeman on an eastbound Union Pacific freight walks forward as the 2-10-2 road engine leads the way up Cajon Pass. The train, actually headed southwest here, is just above Cajon on the tangent leading to a location so identified with the photographer that it came to be known as Sullivan's Curve.
Herb Sullivan

break it in two by snapping a knuckle or pulling a drawbar. Sometimes he would have to take slack several times, and on a 2.2-percent grade this is ticklish business indeed.

No one can accurately describe the feelings of a new fireman going through a tunnel for the first time. Tunnel No. 1 seemed short enough to walk through, but up in the cab of a big 2-10-2 at 15 mph it is a deafening, burning-up, choking ordeal. Just before the tunnel entrance we closed the cab windows, stuffed waste in our ears, took off one glove to breathe into, and prayed that the old girl wouldn't slip down. Fortunately, we had only the two short tunnels on this run, but they were bad enough. After passing through the second tunnel we had to start filling up the boiler so that when we crested the hill at Summit and started down the east side we had enough water to cover the entire crown sheet.

I didn't think we would ever reach Yermo, our division point. As a rule it was a good 12-hour run from East Yard, sometimes longer. Leaving Daggett, Yermo appeared as a tiny green spot across the desert — truly an oasis to a weary engine crew and a welcome sight as we snaked our train into the yard and made a final stop in front of the depot. The engine was cut off and we took her to the small roundhouse and registered in. Then we got a room in the UP club house, cleaned up, ate a bite in the depot beanery, and went to sweet slumber — which was always sound in the clear, cool desert air.

Yermo consisted of an 11-track yard, a handsome depot, and employees' club of Moorish architecture surrounded by green lawns. There was a swimming pool, a library, and pool tables. The town was spread along the two sides of the highway and consisted of 200 or 300 people, most of whom derived their living from the railroad. There was also a turntable and eight-stall roundhouse with a power plant and car-repair track behind it. Yermo was completely surrounded by desert of the most foreboding sand and sagebrush, and there were high mountains to the west.

I was getting acquainted with Yermo the next day when the call boy told me I was called for Second CKC with engine 8800. Gee, a hotshot and a three-cylinder 4-10-2! The crew I was with was also delighted because the assignment paid them a higher rate than the smaller 2-10-2. I'll always remember those handsome 8800s — not only for their staggered rhythmic exhaust but for the fact that they were the only engines on our division with a screw reverse instead of the usual Johnson bar. The engineers hated them — particularly when they had to reverse them.

The gradient is slightly ascending for 50 miles from Yermo through Barstow to Victorville, where the Cajon grade begins in earnest. Going up was a cinch, for as long as an oil-burning engine is working it is creating a good draft and is easy to fire, but drifting downgrade — that is another problem. So it was with 8800. It had a good Worthington feedwater pump, an 18,000-gallon tender, and it was clear sailing across the desert to Victorville, where we stopped for water and our helper coupled onto the point to doublehead us to Summit. Then, as we crept out of Summit with a full boiler of water and started down the 3 percent at 10 mph (for the first mile, then 15 mph to Cajon) I learned an 8800 trait. They gassed when drifting and always, it seemed, to the hoghead's side. If you used too much blower, you used more water and the hogger objected to the noise. And her safety would pop too. But if you didn't use enough blower, the hogger got his lungs full of smoke. And the brakeman decorating the top of the train also objected to the gas.

At San Bernardino the usual practice was

Three-cylinder 4-10-2 No. 8807 shows off its long lines at Yermo in late 1939; Thrall fired sister 8800 west from here in March '41. There were 60 4-10-2s built, all three-cylinder, all during 1925–27; SP and UP had 49 and 10, respectively (all from Alco), and Baldwin built one as a demonstrator, which was never sold.
F. J. Peterson

to leave the train in the yard and take the engine light back to the passenger depot for water, then go to beans. There I learned another fireman's duty: dope the pins — which was to take a large, heavy grease gun full of pin dope and grease each pin, *including* the inside main rod. From then on I understood the engineman's dislike for three-cylinder engines.

Riverside to East Yard is 58 miles: the speedway. Although freight trains were restricted to 45 mph at that time, most of the engineers made every extra mile per hour they could squeeze out of their engines. On this particular trip the engineer decided that with a little extra effort we could get to East Yard ahead of No. 5, the *California Fast Mail*, and to East Yard we flew. That day this student fireman felt as though he were on a varnish job, with the excitement mounting as the crewmen consulted their watches approaching each station. Were we going to make it?

Woe betide the crew that laid out a train like No. 5, but old 8800 performed gallantly and got her crew home in time for dinner, with a nice daylight trip all the way to boot.

Experience — and lots of it — was the only teacher for a new fireman.

Experience — and lots of it — was the only teacher for a new fireman. An engineer made every second count — and milked every sag for a little extra help in making his running time. He was constantly referring to his orders and timecard and the steam gauge and water glass. He actually had *all* of the responsibility on his shoulders, and if he had a new fireman and brakeman, he was well aware of it. A good fireman who was really on the ball made himself lots of friends among the engineers when they learned they could depend upon him to take complete care of the left side. Invariably, it seemed, when an engineer was trying to make time, a red order board would show up at some telegraph office, but the fireman learned never to miss the order hoop. The rules required that the train be slowed down when receiving orders, but to keep in good with the boss the fireman would shout, "Keep her rolling! I'll get 'em!" That was all right except at Bly, which was at the bottom of a sag. In both directions trains would barrel past with wide-open throttles making a run for the grades. The dispatchers knew this, so they seldom gave us a red board there, but I have been known to grab an order hoop from the Bly operator at a good 45 mph.

The older engineers demanded that the steam gauge never waver from the 200-pound mark, and if an engine didn't steam too well the fireman was a mighty busy man. The water had to be carried at a half-glass mark when the engine was working hard, and woe to you if it went a fraction above and started working water out through the stack. I also found out why steam engines were always called "she." They were as temperamental as any female, and you couldn't judge one by another even though they were members of the same class. One 2-10-2 steamed fine with just a little amount of atomizer (the fuel is sprayed into the firebox; the degree of spray is controlled by the atomizer) and her fuel oil at a temperature of 160 degrees, but another one of the same class might require a lot of atomizer and her fuel at 180 degrees. If you got the oil too hot it would boil over, down the sides of the tender and even onto the rail, causing a following train to slip down. Then you *were* in trouble — not only with the master mechanic but with the trainmaster too.

I had heard how nice and easy the feedwater pumps were compared with the old-type injectors, but I found out the hard way that they often wouldn't supply the boiler and we'd have to "double-gun" the engine (use the left- *and* right-side injectors to put water in the boiler). That made it really hard to keep the engine hot. And basically, of course, a good fireman should never cause his engine to smoke. I was often to hear the remark, "You can't make steam out of dense black smoke!" In those days UP engines were well maintained, and it was possible to keep most of them hot with not a trace of smoke. (But, I confess, when I saw a camera pointed at me I always made a little smoke, for as a rail photographer myself I knew what it meant!)

I was sold on railroading. The Union Pacific didn't know it, but I'd gladly have *paid* the road for the privilege of riding and firing its big steam locomotives!

WALTER H. THRALL JR. grew up on the Southern Railway. His suggestion to the road's president led to the preservation of a Ps-4 Pacific at the Smithsonian. Promoted to engineer in 1943, Thrall left the UP — and railroading — in 1956 after diesels took over the L.A. Division. This article, originally titled "I've Been Working on the Railroad," was the first of four in Trains *recounting his UP career. Thrall died in 1976.*

The unidentified fireman of UP 4-10-2 No. 5090 yells something down to operator Chard Walker as he picks up train orders on the fly at Summit, Calif., in December 1950. UP renumbered its 4-10-2s to 5090–5099 in 1942 when it rebuilt them as two-cylinder engines.
Robert Hale

Last corner of big steam's empire

For a few years after diesels took over the last mainline operations in Canada and the United States in 1960, steam hung on in Mexico. Secondhand power from north of the border mingled with built-for-Mexico engines like National Railways of Mexico 2-6-6-2 No. 2037 (Alco, 1937), working near Lecheria north of Mexico City on May 28, 1962. The train is a few miles out of the big Valle de Mexico yard, whose roundhouse was North America's last bastion of big steam. Tom Gildersleeve

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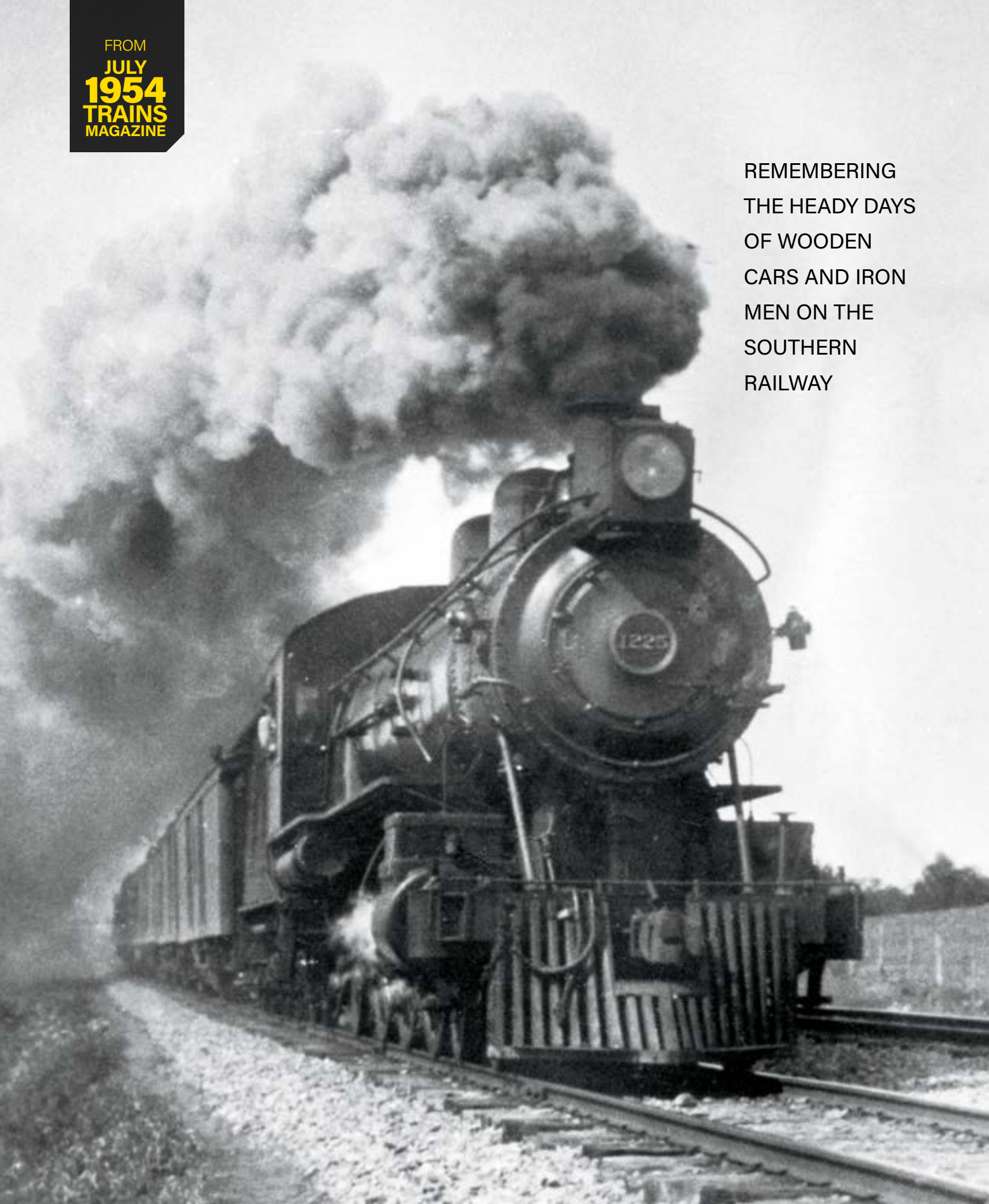

REMEMBERING THE HEADY DAYS OF WOODEN CARS AND IRON MEN ON THE SOUTHERN RAILWAY

By **THOMAS O. ACREE**

Engineers I have known

I have purposely refrained from giving this piece the title of "*Famous* Engineers I Have Known" for the simple reason that in my personal vernacular *all* engineers are famous. I feel assured that anyone who has ever ridden on the seatbox of a fast steam engine for any distance will readily concur that engineers do not get the credit they deserve. Despite the fact that it is their job and one for which they are paid, it is a nerve-racking and most thankless one. Personally, I seldom begin a train trip without first strolling up to the head end to see what type of power is pulling me and to have a short chat with the engine crew. And at the end of my trip I do the same thing — proffering my congratulations to the crew for a nice trip.

These fellows really appreciate this consideration, but seldom does a passenger take the trouble to walk a few steps and shake the hand of a man who has had that passenger's life in his hands for many hours.

So much for engineers in general; now let's chat a while about some engineers I have known personally during my railroad experience. It is easy to merely *know* various engineers through daily contact, but to *remember* them for specific reasons is something different. Although I have been retired from duties on the Southern for 35 years, I vividly remember nearly all the names, faces, and characteristics of the engineers to whom I issued hundreds of train orders and red and green boards (they were red and white in those days) in the years from 1903 to 1918 that I was a telegrapher. Yes, and I remember the days and nights when some of them were called to receive their just reward in that terminal above through derailments or collisions. And I am not the least ashamed to admit that more than once my eyes were filled with tears at the news of their passing.

The man on the righthand side of the cab has class P 4-6-2 No. 1225 running smartly with a Danville Division passenger train, circa 1908. The Southern used this compelling image on the cover of its public timetables during the 1910–15 era.
Southern Railway Historical Association collection

DEPENDABLE, NOT RECKLESS

I shall never forget William "Bill" Kinney, whose regular run was on train 30 northbound and No. 37, the *Crescent*, southbound, on the Danville Division (Monroe, Va.–Spencer, N.C.), where I was employed. Bill was one of the quietest, most gentlemanly fellows I ever met — dependable to the limit at all times but not classed as a reckless type. I had the pleasure of riding in the cab with him many times on No. 37, which was known at that time as the *New York and New Orleans Limited*. Originally he ran a medium-sized 4-6-0, No. 1094, but when the new Pacifics arrived, he was assigned the 1212. He kept this for several years until another batch of Pacifics arrived and he was given the 1312, the one which eventually carried him to his death in a derailment of No. 37 at Benaja, N.C., 15 miles north of Greensboro.

> **Bill would casually look over at me and smile, but he never asked if I was scared. He knew darned well I *was*!**

Whenever I climbed into Bill's cab, he handed me a wad of clean waste from his seatbox to wipe off the fireman's seat, then he offered me one of his cigars. I well remember when we would be really rollin' 'em and our engine would be cutting some awfully questionable capers. Bill would casually look over at me and smile, but he never asked if I was scared. I think he knew darned well that I *was*.

One night when I was riding the fireman's seat, some minor official was in the cab too. Bill was really taking us for a ride, with the 1312 rolling and rocking from side to side amidst clouds of dust, trying to make up an hour's lost time. Finally the official couldn't stand it any longer. Thinking perhaps that Bill had had a drink or two — something he *never* indulged in — he nodded to the fireman and asked, "Say, what's the matter with Bill tonight, running like this?" To which the fireman blurted out, "I jes dunno w'at's de matter wid Mr. Kinney tonight. He's gettin' so he jes won't run a-tall here lately."

Incidentally, Bill Kinney was at the throttle of the 1201, pulling First 37, the *Crescent*'s Pullman section, on the morning of November 29, 1906, when he ran through the rear three cars of No. 33 near Lawyer, Va., 8 miles south of Lynchburg, completely destroying office car No. 100, occupied by the president of the Southern Railway System. Seven people were killed, including President Samuel B. Spencer.

I was night operator at Lynchburg at the time and had just read and presented train orders to the crews of both trains about 25 minutes before the wreck. I went to the wreck on a special carrying the Lynchburg fire department and doctors. When I arrived there I found Bill sitting alone on a little knoll opposite his 1201, which fortunately did not derail. The club car had burned on top of it and had charred it black. Bill was staring at the ground with a wad of waste in his hands, and he didn't look up when I put my arm around his shoulders and asked him about the wreck. His eyes were filled with tears, and I could see he was deeply grieved at having been an unwilling participant. He was in no manner responsible for the wreck.

Bill's best engineer friend, John Wingate, had been pulling No. 33 with Pacific 1211, when he stopped to fix a coupler and had not been able to get a flag back far enough for protection. After the crash, Wingate would not go back to the main part of the wreck un-

Ten-Wheeler 1111, pictured at Alexandria, Va., on the first day of 1915, exhibits the elaborate decoration that engineers would apply to their assigned engines.
Shelby Lowe collection

til he was assured that Bill Kinney was not seriously hurt. Wingate, like Kinney, was a steady, reliable man. He graduated from a small Ten-Wheeler, No. 1065, to a new Pacific type, No. 1207, which he still had when I left the road.

A SURPLUS OF NERVE

As on all railroads, I presume, there were certain engineers on the Southern who bore the reputation of being reckless — and in that category I would have to nominate Owen Norvell and Charlie Baker. I did not consider them reckless but preferred to know them as men who were on the job and had a surplus of nerve. Norvell drove numerous engines, but his 1211 probably took the biggest beating at his hands. She was *not*, however, the one which finally snuffed out his life. It was engine 1204, which headed him into a switch engine one night; the switch engine was standing in a siding with the mainline switch set for the siding.

Ironically, Owen was not on his regular run that night, but had traded with Dave Beaver by request and was pulling No. 34 instead of his regular 40. Dave was badly upset about it.

It was next to impossible for the train dispatchers to figure definitely on either Owen Norvell or Charlie Baker when planning a meet order or trying to keep the bulletin boards at passenger stations marked correctly. Those two just simply ran away with regular schedules. When I knew that either one of them was on the head end I would give him a clear board and then go outside to watch him fly by in a cloud of dust.

Norvell always wore an old felt hat, turned up in front, and a red bandanna around his neck. Many times he passed my office at 75 mph with his right leg propped up in the cab window, his bandanna flying and his pipe in his mouth, as nonchalant as if he were in an easy chair at home. I confess one night I dropped off to sleep and did not awaken when Owen blew for a clear board. Not expecting to find a red board at my office, he passed at about 65 mph and ran entirely out of sight and earshot. He finally backed up under flag protection. I met him half way with a clearance card, but don't ask me the names he called me — only to be forgotten as he waved at me on his next trip.

Owen was the only engineer I ever saw who could come rushing into a station with his train and after making two service applications with his brake valve, be down on the ground with his oil cans before the wheels stopped turning. He knew his stuff and his engine.

One day Owen's engine had a slipping spasm and nearly slipped herself dead still. Owen got so mad he dropped down on the ground and threw rocks at the engine and called her every name in the dictionary — and some that weren't. Then he got back on, perfectly satisfied.

While on the subject of so-called "roughnecks" I also think of my old friend Jack Irby. Jack was a Washington Division engineer, but ran trains 41 and 42 the few miles on the Danville Division between Monroe and Lynchburg, where they were transferred to the Norfolk & Western for movement via Bristol, then onto the Southern again. Jack appeared rough on the surface, but he had a heart of gold and would give a friend the shirt off his back. Anytime anyone really wanted to go for a ride, Jack could be depended upon to satisfy that longing. In fact, he satisfied me too darn well. He scared the wits out of me once when I was riding the 1225 with him. The old gal was rocking, rolling, and kicking up an awful cloud of dust until I thought the next curve would be my last. Jack's coffee pot, full of hot java, jarred from the top of the boiler head and crashed down on the deck. Jack took one angry look at it, and pulling the throttle wide open said, "Turn over, damn you, turn over — see if I care!" His fireman grinned and winked at me and said, "Don't let her scare you, Mr. Tom. She won't turn over. We dun tried her, haven't we, Jack?"

The old gal was rocking, rolling, and kicking up an awful cloud of dust until I thought the next curve would be my last.

The Southern Railway System acquired nearly 150 Pacifics between 1903 and 1914. Most, including class Ps No. 1301 pictured here, were built by Baldwin.
Shelby Lowe collection

In commenting on his engine's antics Jack used to tell me: "She just likes to gallop off the right of way once in a while and wallow around in the cornfields and scratch her back like a dog." The fastest ride I ever took with him was on one of the Southern's few 4-4-2 Atlantic types — No. 1914. I rode on her on train 42 from Monroe to Orange, Va. Believe me, her 79-inch drivers didn't let any grass grow under them on that trip.

65 MPH WAKE-UP CALL

Could I ever forget my good friend, Archie Rowzie, whose regular run was on No. 38, the northbound *Crescent*, and 35 southbound? Archie originally had a small 4-6-0, No. 1093, the same type as the 1102 that carried the famous No. 97 off Stillhouse Trestle in Danville on September 27, 1903. Later he got new Pacific 1208, followed by the 1237 and 1324. How well I remember one night I again dropped off to sleep and was startled by Rowzie on 38, blowing for a clear board. I wasn't wide awake and I thought I was grabbing the knotted rope hanging from the L-shaped lever on the train-order semaphore, but actually I had grabbed the electric drop-light hanging over my telegraph table and pulled the whole darned thing out of the ceiling and smashed the bulb on my table. Needless to say, Rowzie stopped about a half mile beyond my office and started backing up. He didn't report it — and as for me, I reported him "by" to the dispatcher. Well, he *did* go *by*, didn't he? In any case, we had no blank spaces on our train sheets to record trains "backing up."

A fine and dependable engineer — although I never rode with him any great distance — was "Seed" Perry. Seed ran various trains with different types of engines, but finally checked in at the terminal where all good engineers go when his Pacific 1209 on train 43 got her front truck on the ground on a tangent one afternoon. He was running very fast, and the engine was cutting so many capers that Seed big-holed her and jumped off. His fireman rode her through, perched up on the tender, until she finally stopped without further derailment. Seed broke his back and died a few days later in a Lynchburg hospital.

Pacific 1214 stands at Washington on May 4, 1930. Although elegant here in green with gold trim and some brass, she has lost the lavish ornamentation once bestowed on her by engineer "Parson" Gary.
Leonard W. Rice, Southern Railway Historical Association collection

Joe Steadman and his engine, Pacific 1215, assigned to No. 38 northbound and No. 29 southbound, was another steady runner, but not the spectacular type. One afternoon the 1215 wagged her tail and shook her tank off the track as 29 was rounding a sharp curve, entering the north end of the James River bridge at Lynchburg. The tender got crosswise in the bridge and bent some of the uprights. The baggage car hung over the rock approach wall to the bridge but did not fall over. No one was injured.

This article could not be complete without mention of old man Tom Beach. His regular run was on No. 36 northbound and No. 37 southbound, alternating every other day with Bill Kinney. Tom was known as another steady, safe man who would make up a reasonable amount of lost time without turnin' 'em over. His original engine was No. 1066, a 4-6-0, but he later got Pacific 1213 and finally

Engine crewmen pose with shiny Ten-Wheeler 386, built for Southern predecessor Georgia Pacific. Receiving the number 386 in the 1894 merger that created the Southern Railway, the handsome engine would be renumbered again in 1903, the year author Acree became a Danville Division telegrapher.
Shelby Lowe collection

the 1323. The latter two proved unlucky for him. He was killed pulling No. 36 one afternoon with his 1323, running head-on into the 1213, which was headed south with a train of empty reefers. Tom jumped before the crash, but would not have died if he had stayed with her, for no one was badly injured.

One of the most popular freight engineers on the division was Henry Prettyman. He ran a 2-8-0, No. 622, and aside from being a reliable man he was probably best known for the remarkable whistle he concocted with his own hands. Everyone along the right of way listened for it day and night. He made it out of six old flue pipes of various lengths, creating a chime that is difficult to describe. Henry could almost make the darned thing talk.

Mr. Gary's lavishly decorated engine looked more like a toy engine than a real, serviceable piece of machinery.

RIDING WITH "PARSON" GARY

I have saved until last Mr. Gary, because of his unusual personality and reputation surpassed by none. Engineer Gary was another of those stubby, red-faced Irish fellows you just have to like. Unlike railroaders in general, Mr. Gary was a very religious man and was known on the Danville Division as "Parson" Gary. He often conducted religious services in small churches at both of his division terminals. On the road, it mattered not how much he might be delayed or how inconvenient it might be to him; no one ever heard Mr. Gary complain. He took all things as they came to him and never made any comment.

I rode with him many times on his original little Ten-Wheeler, No. 1088, and later on his Pacific, No. 1214. I wish I had been as interested in photography in those days as I am now. I would be able to include with this article photographs of one of the most beautiful engines in existence. Not only railroad enthusiasts but many railroad men themselves would await Mr. Gary's arrival at the larger stations to look over and photograph that 1214. It looked more like a toy engine than a real, serviceable piece of machinery.

At that time the Southern permitted engineers to decorate their locomotives with ornaments of polished brass as much as they cared to, as long as it did not interfere with the efficiency or safety of the engine. The company would furnish some of the brass, and the men bought some of the ornaments themselves. With the help of the enthusiastic firemen the ornaments were kept highly polished at all times. All Southern engineers who had regular engines had their names lettered in gold leaf under the window on each side of the cab. In addition to this, Mr. Gary had his full name in 4-inch-high brass lettering on both cylinders. The steam and sand domes had two brass strips around them in lieu of the usual gold leaf, and the number 1214 was in brass figures on the sides of the sand dome. On top of the electric headlight was a large golden eagle with outstretched wings; smaller solid brass eagles adorned the tops of the sand dome and the highly polished bell. All of the steel nuts in a circle on the front of the smokebox were removed, and polished brass ones substituted. The two classification lights were brass as were as the flag holders.

On the front of each cylinder there was a 5-inch brass star, held in place by a brass knob. Directly under the headlight was a 30-inch brass rod about 2 inches in diameter with brass balls on the ends of it. Visitors were welcome to climb up in the cab, which resembled a living room in a house. Pictures decorated the walls, all brass gadgets were highly polished, the seats were covered with

"In my personal vernacular *all* engineers are famous." Southern Pacific hogger William Burns Jr. waits for a highball at Oakland, Calif., in an undated photo.
J. F. Orem

black leather, and the seatboxes were painted a bright green. Above the firebox door was a heavy brass mantel, with a brass fence bordering it and a set of polished brass oil cans sitting on it. Each can was engraved with Mr. Gary's name with the engineers' union emblem below it. The cans contained no oil; the regular tin cans were kept out of view.

I must relate an instance that occurred one day when I was riding with Mr. Gary and we were really takin' 'em for a ride trying to make up a 45-minute delay. Mr. Gary had a fireman who, by comparison, was not so religious as his hogger. Once in a while the fireman would stop throwing in coal and climb up beside me. Occasionally I would notice him looking down at the ground, nearly hidden by flying dust, and he would shake his head as if to tell me silently, "This won't do." Finally, he couldn't stand the tension any longer, so he slid down off the seat and over to the right-hand side, yelling in Mr. Gary's left ear, "Mr. Gary, don' you think you's runnin' too fas'?" I could barely hear Mr. Gary reply, "It's all right, Bob, the Lord is riding right here on the seatbox with me. He'll take care of me." Without hesitation the fireman yelled back: "Yeah, dat's what's worryin' me. De Lord is over dere takin' care of *you*. Who in hell is goin' to take care of me and dis gentleman over here?"

Their high-wheeled 1214 broke down on an occasion, and they were forced to pick up a small-drivered freight engine to continue. While they were running about as fast as a freight engine can run without stripping herself and with the usual freight engine stack roar, the fireman casually wiped his brow and said to Mr. Gary: "Well, I dunno whether these country folks down here will *see* us or not, but sho as hell dey's gonna *hear* us!" ■

THOMAS O. ACREE left the Southern's Danville Division in 1918, lived in Cincinnati in the 1930s and '40s, then went to California, where he died in 1974 at age 86.

C&O behemoth

Chesapeake & Ohio 1624, one of the road's colossal 2-6-6-6 Allegheny types, hauls empty coal hoppers back to the mines near Moss Run, Va., about 20 miles west of Clifton Forge. Lima built 60 of the behemoths for C&O between 1941 and '48, plus 8 for Virginian in 1945. Some had an engine weight of 389 tons, making them the heaviest reciprocating steam locomotives of all time. C&O

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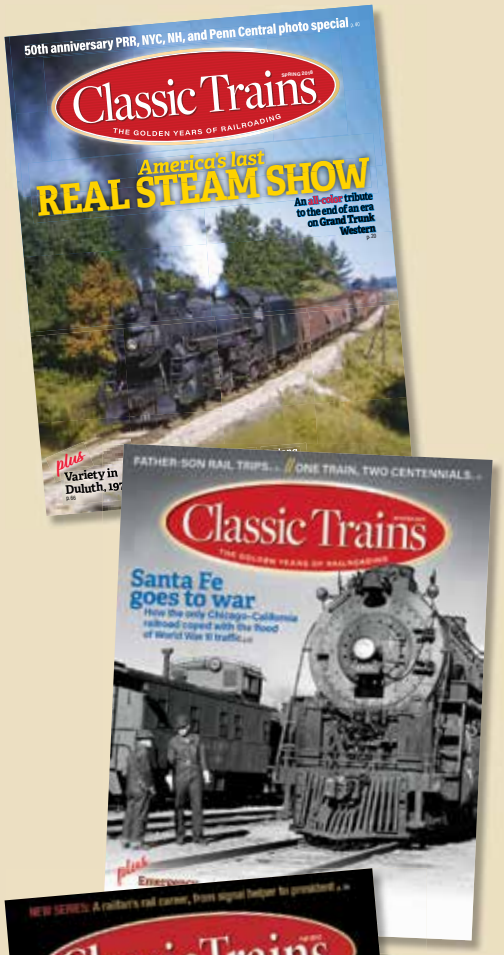

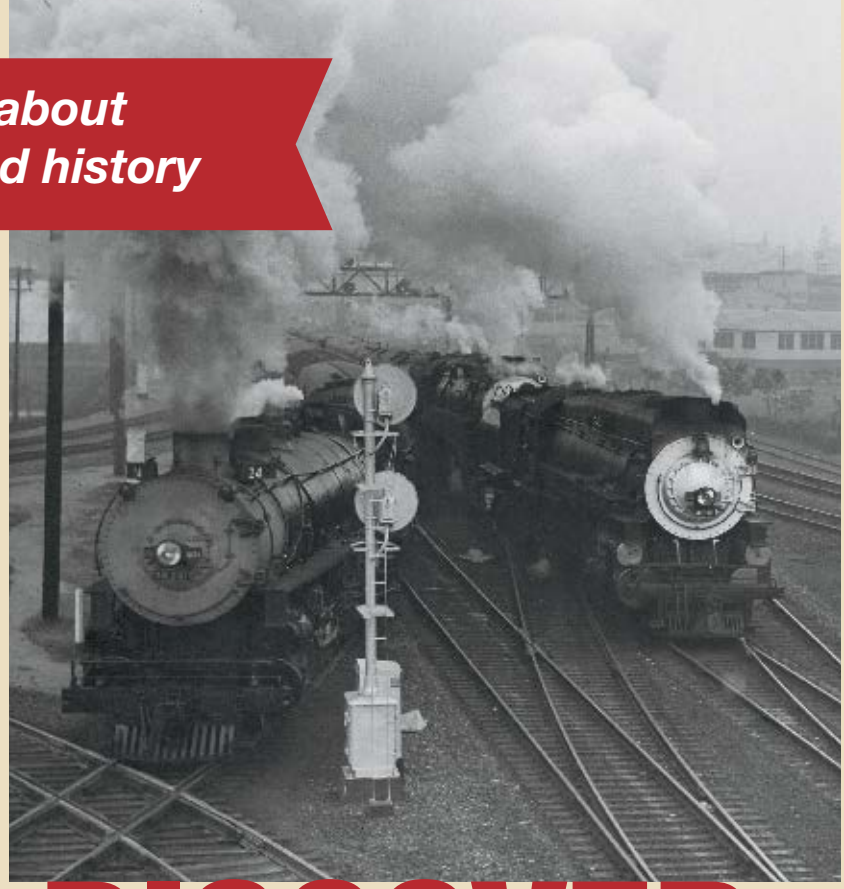

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