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Wanted



BAD

The most notorious

outlaws of the 80's ... the James Boys ... the Daltons ... Belle

Starr...took refuge

in this gun-blazing

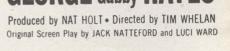
town outside the law!





SAM BASS







. IN ACTION ... IN ONE PICTURE!

RANDOLPH SCOTT ANN RICHARDS GEORGE Gabby HAYES

The flanged wheel on the steel rail Carries the output of farm, factory, and mine-at an average charge no higher now than before the war Remember this picture of the wheel and the rail ... the unique combination which makes it possible for railroads to run trains of cars ... the only means of transportation with the capacity to meet America's major needs ... in peace as well as in war. Flanged wheels on steel rails, plus a vast volume of traffic, made it possible for railroads-despite steep increases in wages and costs in the past five years-to haul freight at charges which generally are no higher now than before the war. It still costs, on an average, less than one cent for hauling a ton of freight a mile. Railroad charges depend upon both operating costs and traffic volumebut whatever changes the future may bring, the flanged wheel on the steel rail will still be America's basic reliance for dependable transportation at the lowest possible charge. **AMERICAN** RAILROADS



ILROAD

MAGAZINE

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Cover: Through the Alleghenies (PRR J-1) By Frederick Blakeslee

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How to CHANGE A TIRE AT NIGHT...

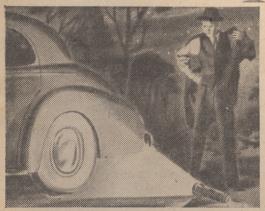
More Quickly-More Safely!



Most any motorist can change a tire. But few can change it at night with top speed, efficiency—and safety! Night-time tire-changing can be hazardous—but a little care and an "Eveready" flashlight can reduce the danger. First principle, says the American Automobile Association, is...



2 Park off the highway, if at all possible. Next best place is on a straight stretch of road where you can be seen for at least 500 feet. If you must park on a curve, a light should be set on the road some distance back. Be sure neither you nor a bystander blocks off the view of your tail-light!



3 Keep all your tire-changing tools tied or boxed together, where you can pick them up without searching or fumbling. Remove your spare before jacking up car – tugging at it later might push car off jack. If alone, set flashlight on a stone in convenient position.



In your car or at home—wherever you need a flashlight—rely only on "Eveready" batteries. For "Eveready" batteries have no equals...that's why you'll find them in *more* flashlights than any other battery in the world! Now that they're available again, there's no need to accept a substitute!

NATIONAL CARBON COMPANY, INC.

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UE



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Less Than Carload Lots



Mo., submitted the following:

Four frisky colts in search of greener pastures broke down a farm fence the other day and romped along the M-K-T track at a point about 14 miles southeast of Parsons, Kan., thus delaying a freight train. But on a bridge their legs got caught between the ties. Engr. R. S. Wilkerson ground to a stop and the crew piled out. Condr. Harry Ellis soon discovered that as in the case McCarty related—they could not free the excited animals without a wrecking crane, so he phoned the Parsons terminal. After the train had been delayed two hours, the horses were finally released by the big hook with the aid of a sling made from chains. Neighing their thanks, they galloped off, unhurt, and the freight got rolling again.

BANDONED baby girl, Aid worker the other night

in the ladies' room of L&N station at Birmingham, Ala., has been christened Ellen, based on the road's initials. With her had been left some clothing and two milk bottles, one empty, one full-nothing else. If efforts to locate the parents fail, Ellen will be turned over for adoption. Many people have applied for her.

W/ANT to be a railroad president? Your best chance is to start as a clerk. A study of the careers of 75 big chiefs, reveals that 23 of them entered the field in a clerical capacity.

Of the others, four started as office boys, five as messengers, two as agent-telegraphers, eight as ops, two as laborers, nine as roadmen, two as chainmen, two as transitmen, four as junior lawyers, and one each as clerk-bookkeeper, clerk-telegrapher, station agent, callboy, waterboy, secretary, track apprentice, claim adjuster, assistant treasurer, instrumentman, assistant supervisor, assistant signal engineer, assistant resident engineer and timekeeper.

On the average, railroad presidents reach the top after 30 years of service.

TOW one of Hitler's luxurious railroad cars was con-BELLY verted into a cow's bouldoir is revealed by The Railroad Teleg-

rapher in a letter from Capt. C. E. Davis, furloughed Cotton Belt dispatcher and member of the ORT. Davis is now serving as executive officer of the Frankfurt Reichbahn Division of a German railroad. with a U. S. engineer division. He says the cow was General Eisenhower's property. While "Ike" was in Germany he never failed to take along this source of fresh milk on his special train, made up from Hitler's private cars.

GUICIDE of a raildog recently at Beverly, Iowa, on the C&NW, is reported in a Cedar Rapids Gazette item sent to us by Adolph Heinemann, Niddle, Iowa.

"The mascot was an old dog of doubtful origin but a clever, lovable fellow who liked railroaders," states the Gazette. "Whenever a passenger train passed the switchman's shanty at Beverly, the dog was out foraging for the food he knew would be thrown off. But finally the infirmities of age became too much of a struggle and he decided to end it all. As a switch engine pulling 15 cars approached, he walked the 15 feet from the shanty to the tracks, laid his neck on the rail, and the train passed over him."

According to A. S. "Tip" Larsen, 1339 Second Ave., Cedar Rapids, Iowa, who witnessed the scene, the animal had been hanging around the railroad for six or

Trail Leads To Haunted House And Then · ·















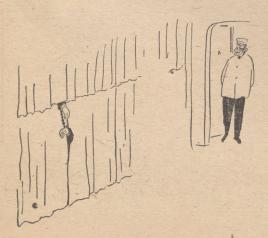
THIN GILLETTES ALWAYS GIVE YOU SMOOTH,
REFRESHING SHAVES THAT MAKE YOU LOOK
RIGHT ON THE BEAM AND FEEL SWELL
THEYRE THE SHARPEST, EASIEST-SHAVING
LOW-PRICED BLADES YOU EVER TRIED.
WHATS MORE, THEYRE PRECISION-MADE
FOR YOUR GILLETTE RAZOR AND PROTECT
YOU FROM THE DISCOMFORT CAUSED BY MISFIT
BLADES. ASK FOR
THIN GILLETTES

eight months and "knew about trains." Says Larsen: "His fate was intentional. He knew what he was doing."

This recalls the "dogicide" recorded in Hubbard's book, Railroad Avenue, involving Happy, the pet of DL&W President William H. Truesdale:

"This animal was left behind at the Truesdale residence in Greenwich, Conn., when the big chief sailed for Europe in the summer of 1905. Happy had spent so much of his life in rail travel that Mr. Truesdale, who partly understood canine loyalty, foresaw that the dog would probably hang around the Greenwich station, and he asked N&NH&H employes there to do what they could for the little creature. Sure enough, Happy did show up at the depot. Station Agent Buckwalter, Baggagemaster Haller and Operator Sheridan tried to cheer him up, but the dog would not respond. He climbed into the signal tower and seemed to find a melancholy pleasure in looking out the window at trains thundering by. His big eyes would follow them with sad longing; he refused to eat, and he was pining away.

"Finally, on August 2, 1905, the deserted pet could stand it no longer. A Shore Line limited came roaring down the main. Happy looked up to the tower as if to say goodby, and then, according to two eye-witnesses, he deliberately walked in front of the train. His death was not accidental."





URIED track, over which the first trains is believed to have reached Jamestown, N. Y., in 1860, has just been found beneath concrete flooring of the old Everett Hotel in that city, reports Walter Thayer, Box 1588, Chelan, Wash. The track, discovered by laborers digging a

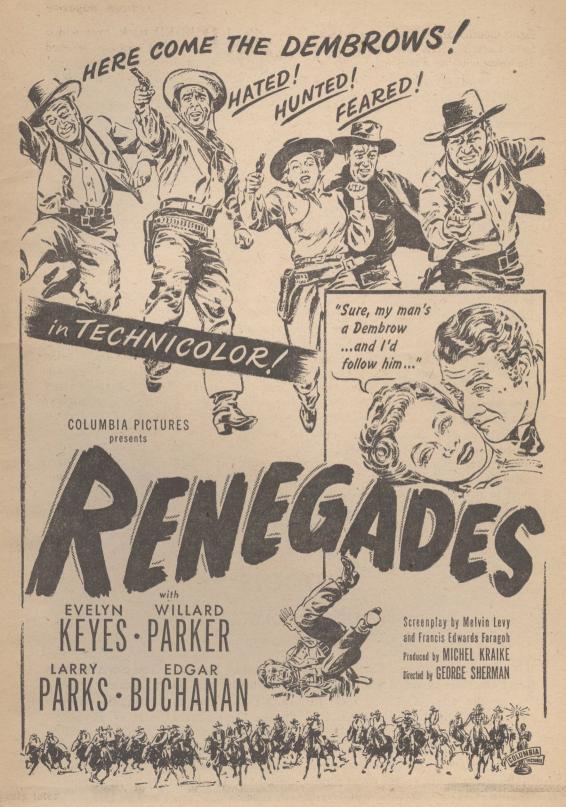
REVOLUTIONARY IDEAS will have to be adopted by the railroads in the present highly competitive era, according to J. R. Coulter, Chief Traffic Officer, Frisco Lines, 722 Frisco Bldg., St. Louis 1. Mo.

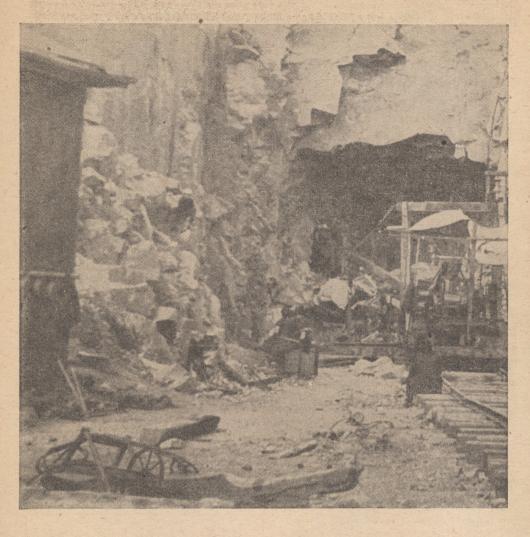
sewer, was allegedly part of an Erie siding.

"One of them," he says, "could well be credit cards for passenger travel. These cards could be issued to industries and distributed among the firms' traveling representatives. Instead of paying cash for railroad transportation, the traveling man could present his credit card at the ticket window and the railroad could charge the firm for his transportation. We haul freight on credit; why not passengers? We should make it as easy as possible for people to do business with us."

DIBLES were once standard equipment on some passenger trains. A while ago we printed an item about oldtime Erie trainmen complaining that Bibles were being stolen from coaches. We now see a Chicago Daily News letter written by A. F. Runkle, Elkhart, Ind., telling how the LS&MS came to adopt the custom. Here are the facts:

In 1871 Charles Paine, General Manager of the Lake Shore and his family lost all their possessions except the clothes on their backs in Chicago's big fire. Employes of the road raised \$5000 for him, but Mr. Paine refused the generous gift and it was turned over to the Cleveland, O., Bible Society. The Society spent most of this money the following year in equipping each Lake Shore coach with a neat rack and a Bible. The practice was followed religiously until 1892, when it gradually died out.





Tunnels

By HENRY B. COMSTOCK

Editor, Railroad Magazine

HE thin tongue of flame which licked up through Cold River saddle that October day in 1865 was hardly brighter than the frost-nipped foliage. But the black smoke hanging like a tattered shroud above it carried its unmistakable message of tragedy to the west sum-

mit signal house. Within a matter of minutes all North Adams knew that death had struck again, deep in the slate-quartz heart of Hoosac Mountain.

"Those who do the devil's work must take the devil's wages,"-thundered the local clergy, while a poet,



Photo from collection of Ray Hicks, 25 Hawthorne Ave., Gleen Ridge, N. J.

his tear drops tinctured with an inkstained thumb, penned thirteen verses of rhyme-corrupted legend which began:

"Only a tunneler" killed last night, Blown up about twelve o'clock. There's no one to blame. The fellow was tight, And couldn't endure the shock.

Meanwhile, surface workers struggled desperately to quench the fiery geyser circling the central ventilat- A miner shook his singed fists at a ing shaft of what was to be the na- blazing wooden drum.

F THE more than fifteen hundred railway tunnels in the United States were laid portal to portal they would form a continuous subway from New York to Richmond, Va.-320 miles! Most honeycombed single ridge is Bergen Hill, N. J., which is pierced by no less than eight tunnels in a distance of six miles. Above: Preliminary mucking operation on the Lackawanna's new Bergen Tunnel

tion's longest hardrock bore—the mighty Hoosac Tunnel.

"Gasoline," he coughed. "Damn them new commissioners! They should have left the stuff alone and stuck to oil lamps."

A heavy hand fell on his shoulder. Turning, he looked into a strained face, gray as rock dust; nodded and touched his cap.

"Tom," the newcomer said, "how many men are down there in the shaft?"

"Thirteen, sir; all the crew. With the pumping engine cut off they'll drown like rats in a tub-that is, if they aren't crushed first by falling. . . ."

The sudden buckling of the elevator gantry finished the sentence for him. Angling crazily to one side it parted in a bright cascade of sparks and plummeted piecemeal into the yawning pit below. For one brief moment volcanic rumblings rose from the crater: then there was silence, broken only by the crackle of the flaming fuel drums.

Once more the miner fumbled for his cap.

"Mr. Mowbray, that makes more than a hundred of us killed here in the Hoosac. When is this murder going to stop?"

The man with the gray face shook his head.

"Not," he said, "until the Commonwealth of Massachusetts turns construction over to a competent private contractor. You can't run trains through a mountain honeycombed with political graft."

BRILLIANT CHEMIST who had been conducting blasting experiments with the new explosive, nitro-glycerine, George M. Mowbray knew of what he spoke. For fourteen long years this ineptly-operated engineering project had been the laughing stock of neighboring states, and the dismay of every Massachusetts taxpayer.

The idea behind it was sound



Photo by George M. Hart, Doylestown, Pa.

MISTAKENLY called America's first tunnel, this Union Canal bore was drilled through a ridge near Lebanon, Pa., in 1826-four years after Schuylkill Navigation Co. pierced a smaller hill above Pottsville

Tunnels . 13



Photo by George M. Hill, 255 N. Spring St., Blairsville, Pa.

enough—a rail link_between Boston and the west which would avoid the difficult Green Mountain grades of the Boston & Albany. What had made the more northerly route especially attractive were the two natural watercourses approaching Hoosac Mountain's steep flanks one, the Deerfield River; the other, the winding Hoosac. Both had done a titanic task of preliminary grading. Join the two trenches together with five miles of subterranean railroad and the manufactories of northern New England would stream an endless line of traffic into Albany over an easy profile.

With incorporation of the Troy & Greenfield Railroad, the State Commission had made a brave start. It must be remembered that in 1851 the art of tunnel construction on this side of the Atlantic was in its infancy. Only eighteen years before, the first railroad bore in the United States had been driven through Staple Bend, four miles east of Johnstown, Pa., to carry traffic of the Alle-

OLD Allegheny Portage Railroad boasted the first railroad tunnel in the Western Hemisphere; a 901-foot lancing of Staple Bend, on the Connemaugh River, east of Johnstown, Pa. Its red sandstone portals still stand firm and foresquare, but the archways have been partially sealed

gheny Portage Railroad between the canalized watersheds of the Juniata and Conemaugh rivers. This humble little stone-lined corridor, measuring just over nine hundred feet in length, may still be seen today, its sealed portals buried deep in the emerald twilight of the tilted forests.

Four years after the first green-barreled locomotive entered the Portage smoke-hole, blasé Manhattanites boarded a New York & Harlem train for a spin through a rock-ribbed transportation lane at Ninety-first Street and Park Avenue. Precursor of the City's intricate subway network, Gotham's pioneer tunnel was only three blocks long!

Scores of other smoke holes had

been drilled before the fathers of the Hoosac fired popular fancy with their bold proposal to pierce the twenty-five-thousand-foot mountain barrier from both slopes, working the headings inward toward a meeting point. At the same time a central ventilating shaft was to be driven downward a distance of more than a thousand feet and corridors pushed outward in both directions toward the end headings.

Even today the layman finds it hard to understand how tunnel engineers can plot the course of such a project with full assurance that the excavations will not bypass one another.

Yet the Hoosac system, primitive as it was, proved highly accurate. Here's how it worked: The mountain, itself, did not build up to a central peak. Rather, it had two summits with an intervening saddle. On each of the crests a large stone tower was placed, directly over the line of the proposed tunnel. Thin steel masts capped the monolisks, giving a still more precise indication of the excavation's center line. So far, so good. But it stood to reason that both towers could not be seen from the portals of the Hoosac. By means of a transit equipped with a powerful telescope, the line of the tunnel was therefore projected on across the Hoosac and Deerfield rivers to two additional mountain tops, where similar towers were erected. Now it became a simple matter to align the tunnel mouths between cross-river markers. As work progressed into the rock, iron hooks were imbedded in the ceiling, from which plummets could be suspended. Each drop line, in its turn, was brought into plane with the two behind it, providing a continuous directional check.

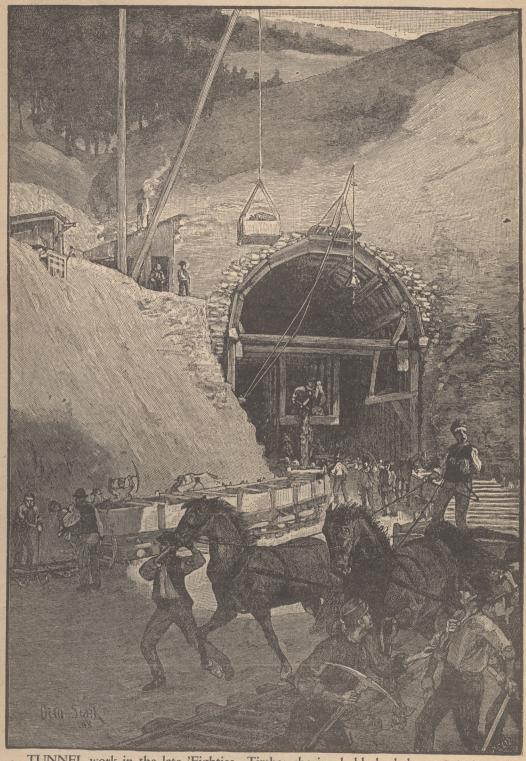
A more difficult problem was that. of getting the central shaft headings started in the right directions. Again the Hoosac towers served to locate the vertical tunnel. On either side of it, and still in line with the summit markers, a fifth and sixth tower were raised. A wire stretched between them afforded suspension points for plumb lines dropped to the bottom of the shaft at locations as far apart as the width of the cutting allowed. To prevent their swinging ever so slightly—a variation of a fraction of an inch in so short a spread would have thrown all calculations offeach cord was boxed in an eight-inch square wooden sleeve and the weights themselves suspended in buckets of water. Again the tunnel workers had two fixed points from which to align their iron hooks.

So MUCH for the surveyors' work, which was done with such skill that when the headings finally met there was less than half a yard's variance between them.

But the record of actual construction was a black monument to governmental ineptitude. A huge and costly drilling machine was hauled into position and promptly battered itself to pieces against the flinty Green Mountain head. To add to the confusion, miners encountered quick-sand below the original facing on the Deerfield slope and a second portal site had to be selected further along the slope.

Drilling at first was by hand; the only explosive, primitive black powder. Three times in nine years the project bogged down for want of funds. Pamphlets denounced the Tunnel politicians, urging that they be "lodged for the remainder of their days in State Prison or an asylum

Tunnels



TUNNEL work in the late 'Eighties. Timber shoring holds back loose wet stone, or "porridge"

for idiots." Even genial Oliver Wendell Holmes lampooned such doubtful efforts, predicting that when locomotive wheels rolled through Hoo-

sac bore, it would be time for the citizens of Massachusetts to order their ascension robes.

The tragic central-shaft fire of



(English cartoonist W. Heath Robinson perpetrates a great moment in railway history)

BORING the first tunnel with an early type of rotary excavator

Tunnels 17

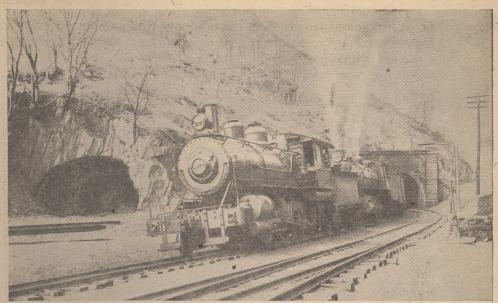


Photo from collection of Charles E. Fisher, Pres., Railway & Locomotive Historical Society

EASTERN PORTAL of the Hoosac, for many years the longest smoke hole on the North American Continent. False start to the south was abandoned when quicksand was found just inside the facing. Helper engine in this 1900 photo is Fitchburg 1075, a Taunton-built Consolidation converted into a compound by Baldwin in 1898

1865 increased the demand for a general housecleaning. Belatedly the commissioners announced that new drilling methods were being introduced which would greatly accelerate the work. Word had reached them that in the Mont Cenis bore, then under construction in the French Alps, compressed air was being used effectively.

A firm in Fitchburg, Mass., pondered over the blueprints and with Yankee ingenuity improved upon the design of the hammer drills. Their pneumatic apparatus was mounted on a light pushcar, pipe-connected to large air compressors placed at both ends of the Hoosac. Deerfield River waterpower drove one pump; steam engines, the other. With sixty-pound pressure, holes ranging from four to five feet deep could now be put down in one hour.

We have already mentioned

George Mowbray's experiments with nitro-glycerine. In 1867 he finally convinced the commissioners that the liquid explosive would more than double the rate of blasting progress. The problem was how to handle it. Spill but a small amount on the floor of the tunnel and the spot was unsafe for months to come. Mowbray stored the treacherous stuff in a magazine near his manufacturing plant in North Adams, and shipped it to the shafts in copper cans.

One winter's day a driver named Nate Smith stacked a load of these drums on a little sled and started over the snow-covered mountain toward the east portal. The underfooting was treacherous and when he was well up the slope one of the horses stumbled and fell, dragging down his mate. The sled jackknifed and the whole outfit slithered over the shoulder of the road, tumbling

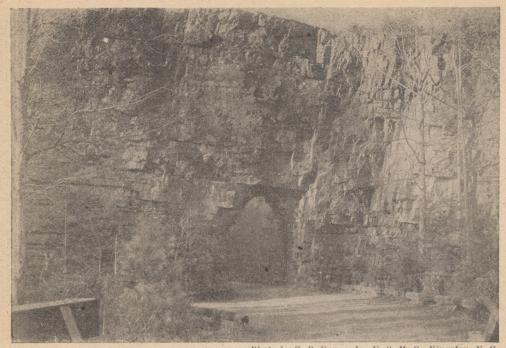


Photo by G. P. Vance, Jr., U. S. M. C., Kingston, N. C.

PICTURESQUE abandoned railroad tunnel through a narrow spur of Butt Mountain, in Johnson County, Tenn., now arches over a forest service truck trail along Beaver Dam Creek

end over end down the mountainside.

Nate, who had been thrown clear on the first roll, started digging a tunnel of his own into the snow, expecting any moment to be blown skyhigh. But there was no explosion and when he finally summoned up courage to slide on down the hill and release the team, he discovered to · his surprise that the glycerine inside the cans was frozen stiff. That lucky accident provided the clue for safe handling of the powerful explosive. For in a solid state glycerine is quite harmless. Thereafter all nitro was pre-frozen before it left the plant.

Despite the improvements in blasting technique the state project continued to lag and in 1869 a private contractor from Montreal was called in. Soon the rock began to fly. Huge new pumps were set up at the center shaft to handle the immense quantity of water welling into it. Crews worked in three shifts, around the clock. Within two years the length of the cuttings had been doubled. Then on a November afternoon in 1873, a feeble tremor of electricity flicked along the detonator wires from a primitive hand-cranked friction machine. Twelve pounds of glycerine roared from the depths of four stone throats and when the last loose fragment of shale had rattled to the tunnel floor a sudden lusty cheer went up. Through the dust and smoke could be dimly seen a ragged hole some eight feet square, its mica lips backlighted by the glimmer of lamps beyond. The last headings had met—an open corridor now pierced New England's Chinese Wall.

RATORY and black smoke rolled from the West Portal as the first train out of North Adams entered the Hoosac on October 13th, 1875. A brass band raised Green Mountain echoes from its bunting-decorated platform at the portal. Statisticians loosed an avalanche of figures: More than a million tons of rock removed; twenty million bricks troweled together to form a firm sleeve at the western end, where the rock was so soft and saturated with moisture that tunnelers aply named it "porridge". Half a million pounds of nitro-glycerine had been exploded: more than seventeen million dollars spent on wages and equipment: one hundred and thirty-nine lives "laid on the altar of transportation progress."

In due course the little trains that scurried into the black hole grew in size. Huge Mallet engines hunched their shoulders behind the multicolored drags that creaked in steady procession out of North Adams. The full-throated exhausts that rattled dishes on the shelves and cocked the chromo portrait of Uncle Zeke at an



Photo by J. W. Holbrook

HUGH State of Texas is reputed to have only one railroad tunnel, through which a locomotive hasn't passed since 1898! Now on a mail and supply road serving scattered ranches between Chispa and the Rio Grande, it once gave the Texas & New Orleans access to a remote coal mine

unbecoming angle, found small room for expansion in Hoosac Tunnel.



FOUR tracks of the New York Central's Hudson Division pass under Rhinecliff Hill, once a part of Director John Jacob Astor's estate



FOLIAGE-CLOAKED cut guides the Central of Georgia trains to the tell-tale protected portal of an obscure "rathole." This road, along with the Chesapeake & Ohio, claims the fabulous John Henry as its own

Fans whirled feebly in the central ventilating shaft. Neither they nor the two smaller chimneys on the mountain's outer slopes did much to clear the atmosphere. Engine crews buried their mouths in wet sponges; mumbling curses as driving wheels lost their grip on slippery rails, sending still denser smoke columns up the stack.

Still worse was the plight of the tunnel workers. When the big mills came, it was no longer possible to stand between an engine and the nearer side wall. Safety niches were cut into the rock at intervals of two hundred and fifty feet. They were a help, provided you could find them in the fog.

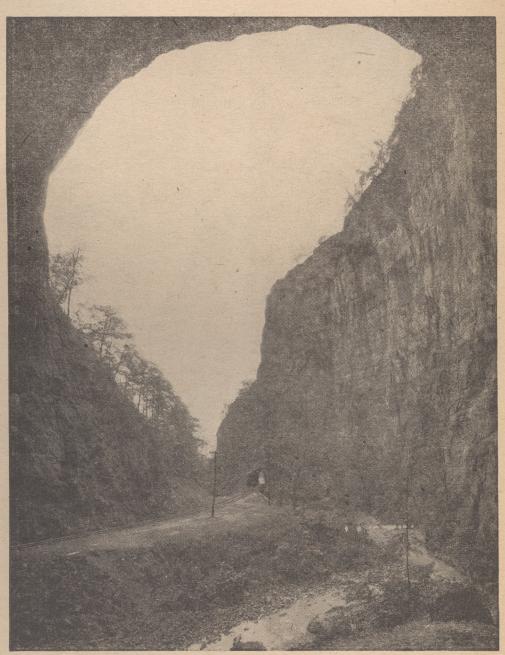
This was how matters stood until 1911, when nine miles of trolley wire was threaded through the Hoosac. Shot hot in May of that year, it fed its smoke-free energy to five diminutive Westinghouse motors. Locking knuckles with a long manifest, two of the juice jacks grumbled up the 0.5 per cent tunnel grade at a steady, twenty-mile-per-hour clip. The stubby stack of the trailing steam still spurned a drifting exhaust but its breath was no longer lethal.

WHILE Hoosac's great length, combined with the early date of construction, make it in many ways the most remarkable of all North American railroad tunnels, only a small part of the whole dark pageant of hard-rock drilling is buried between its granite portals. The miners who toil deep under the crust of the earth, to meet the inflexible demand of flanged wheels for a nearly level grade, are a story in themselves. Working in eerie surroundings, with sudden death as a constant companion, they have an ingrained be-

lief in the supernatural. As might be expected, their legends and songs reflect this trait.

Earth was still being wheeled from

the mouth of the world's first railroad tunnel—The French Terrenoire bore, completed in 1826—when George Stephenson undertook to



MASTER ENGINEER for the Southern Railway's Powell Mountain underpass was persevering Stock Creek, which cut a 900-foot natural tunnel through the Scott County, Va., barrier

drive a horizontal shaft through Tyler Hill, in Kent County, England. This digging, still a part of that country's Southern Railway system, lies within sight of the stately towers of Canterbury Cathedral. The tale goes that when daylight broke through the knob in 1830, a strange circumstance was noted. Just once a year, on June 9th, the date of the great engineer's birthday, the sun peeks for a brief hour through the cutting.

On this side of the Atlantic, gangs of burly Negroes whipping down steel with their thin-hafted hammers, gave us the fabulous story of "Jawn" Henry. Today there are no less than eight recorded versions of the song which elevated this ebony idol of the hard-rock gang to a pedestal beside Paul Bunyon. If we believe the verse which runs:

Some say he's from Georgia Some say he's from Alabam' But its wrote on the rock at the Big Bend tunnel, That he's an East Virginia man, That he's an East Virginia man.

—then we will have the full support of the Chesapeake & Ohio Railway, whose original Big Bend tunnel is one of two smoke holes reputed to have been the sight of spectacular drilling contest in which Jawn outperformed a steam hammer, but bursted his heart in the process. The other and less likely setting is the Central of Georgia's Oak Mountain tunnel, hundreds of miles further down the ridge.

For sheer poetic beauty most critics prefer the C&O ditty, which continues:

John Henry told the Cap'n
When you go to town,
Buy me a nine pound hammah,
An' I'll drive this steel drill down,
An' I'll drive this steel drill down.



Photo by W. J. Erickson, Londonville, N. Y.

BOSTON & ALBANY BERKSHIRE works the left track through a rib of the Taconics at Canaan, N. Y.

The steam drill was on the right han's side

John Henry was on the left, Say, before I let this steam drill beat me down

I'll hammah myself to death, I'll hammah myself to death.

And that is exactly what happened to the strapping six-foot four-inch giant, according to the last verse, which concludes:

They took John Henry to the White House
And buried him in the san'.

NOT content with having produced one legendary tunnel character, the railroad which had pushed no less than twenty-five smoke holes through the Blue Ridge and the Alleghenies on its rugged line from Richmond to the silvery Ohio, laid claim to still another black colossus, in 1916. He was Dan Chains, better known in Cabin Creek, West Vir-

ginia by the moniker "Fewclothes."

Picture for yourself a devastating flood in the upper Kanawha River Valley. Tracks undercut and ties upended like a picket fence. Trains are marooned all up and down the line, their cars bunched together at crazy jackstraw angles. The arch of Seng Creek Tunnel, just under a mile in length, lies half submerged, a black pool at North Portal completing the circle of masonry in faithful inverted pattern. No man in his right senses would venture through that subterranean river, with its flotsam of uprooted trees shaking their contorted limbs in the muddy eddies.

No? Then listen-

From somewhere deep in the heart of the mountain a velvety bass voice booms through the blackness.

"Ah only charges what folks want to gib me. No regulah price. Some pays me a quartah, an' others a dollah. Whatever you thinks the trip is wuth."

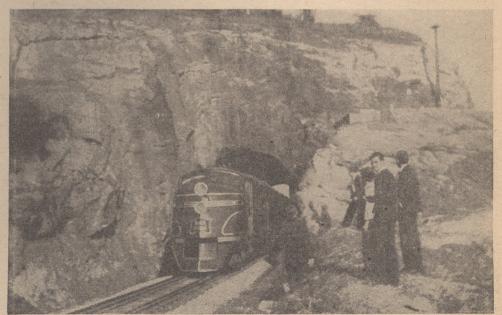


Photo by Ray F. Stuart, Bow 414, Utica, Ill.

ROCKETING through Split Rock Tunnel. This CRI&P landmark in the Illinois
River Valley was recently "daylighted"

GAUNTLETS are an ingenious means of funneling double-track through narrow tunnels without the use of switch-points. Below: Cincinnati's only steam railroad tunnel once carried passenger traffic to and from old Court Street Station. Built by the Cincinnati, Lebanon & Northern, it is still used by PRR and N&W freights. At right: New Haven Road's Walpole tunnel was double-tracked in the days of small engines; gauntleted, as shown in this sketch, when clearances closed in; and still more recently, single-tracked

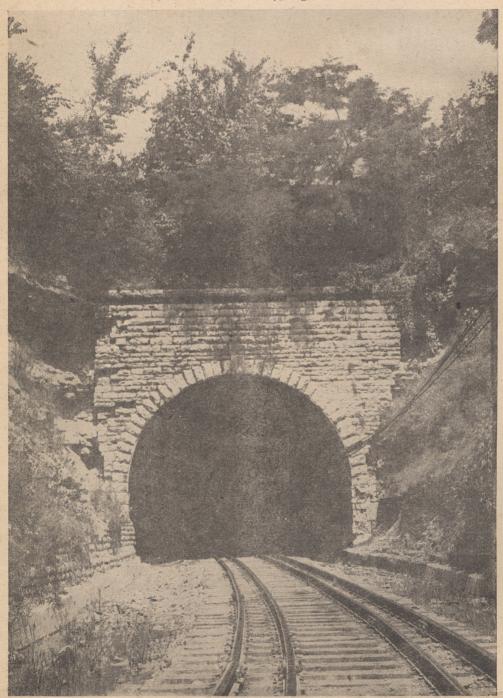
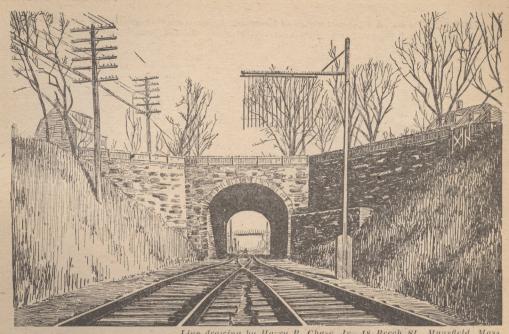


Photo by Joseph E. Siegel, 7000 Bramble Ave., Cincinnati 27, Qhio

Tunnels



Line drawing by Harry B. Chase, Jr., 18 Beech St., Mansfield, Mass

A five-foot blacksnake slips down the bank with a rattle of loosened pebbles: glides easily along the bottom of the pool. Curled rhododendron leaves wink in the mocking sunlight. And then, with a last slow creak, a johnboat thrusts its prow from the bore and the huge bulk of the rower straightens. He is Fewclothes, the C&O section hand, clad as usual only in ragged overalls. He has just brought in another ferryload of refugees.

Fewclothes is no hero, slated for a Congressional Medal of Honor. Just a simple colored man: one part worker, two parts loafer, three parts fighter, and the rest plain daredevil. He has seen a chance to commandeer the Anchor Coal Company's boat and fill his bib pocket with loose change: folks can take his craft—or scramble over the mountain. Within a few days one of the railroad's special police officers will break up Fewclothes' lucrative trade and the big black boy will pick up his spike maul again and go on to other exploits of the kind that have made him a legendary figure in the disconsolate valley of the Great Kanawha.

CONTRARY to the appearance of some rights of way, railroads have always been loath to hew corridors through the hills, even where appreciable reductions in mileage or grade would result. The great engineer Ashbel Witch once said, in reference to the Panama Canal:

"That is the best engineering, not which makes the most splendid or even the most perfect work, but which makes a work that answers the purpose well, at the least cost."

His observation might have been applied with equal pertinence to railroad tunnels. Expensive to cut and costly to maintain, particularly where ventilation or the facing of loose rock is involved, they are bottlenecks in fact as well as form. Ameri-

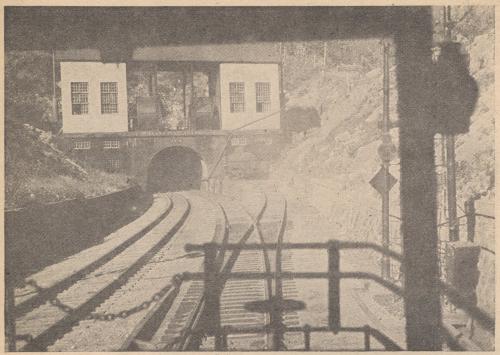


Photo by Andre Morin, 5525 Angus Drive, Vancouver, B. C.

BIG Diesel-powered blowers that clear CPR's Connaught Tunnel in thirty-five minutes create so powerful a draught that patrolmen have to lean at a forty-five degree angle to make headway against it

ca's first subterranean traffic artery was probably the only hard-rock bore which ever violated the principle.

This four-hundred-foot-long archway, pushed through a diminishing ridge above Pottsville, Pa., on the line of the Schuylkill Navigation Canal, was completed in 1820. Had its promoters been less anxious to exhibit their skill in surmounting natural barriers they could have completely avoided the obstruction with a one-hundred-foot detour. As it was, the once-famous tunnel was converted into an open cut in 1857.

It might be pointed out, here, that this policy of "daylighting" tunnels has been carried on at an ever-faster pace with the development of bigger

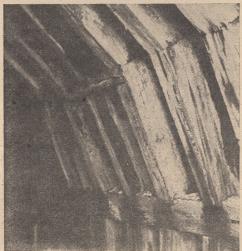


Photo by George M. Hart, Doylestown, Pa.

Above: Timber arching of the venerable Quemahoming bore, once used by the Pittsburgh, Westmoreland & Somerset Railroad, was still holding firm when this photo was made in 1933

HELL-ROARING construction camps were an inevitable part of every tunnel job. But they had lost much of their pristine vigor when Great Northern laid out this orderly city in the wilderness for the hardrock Hannigans at work on the Cascade

and more effective excavating machinery. Take the Baltimore & Ohio, for example, which has more tunnels than any other railroad east of the Mississippi River. As necessary as many of these smoke holes were at the time of their construction, they have not simplified the task of wrestling tonnage in recent years. Some of them, too, have been a source of sorrow on scores other than smoke nuisance and limited clearance.

Take Number 23, on the Parkersburg (West Virginia) Branch. It was a right pretty piece of engineering when it was "holed through" in 1853, removing the last obstacle on a shortened route to the Ohio.

There was only one hitch. Every time the big river went on a rampage, that tunnel got the backwash of the Little Kanawha, sister stream of the rampaging tributary which gave Fewclothes his unexpected Seng Creek windfall—or waterfall—as you choose.

Filled to its brick-lined ceiling, Number 23 was no place for an uncalked boxcar, and neither were the rails on either side of it. What was to prevent the gradient from being raised? Obviously, the self-same arch, and the continuing mountain barrier above it.

But shovels were now available which could make short work of thirteen thousand cubic yards of rubble. In 1944, the railroad went to work on Tunnel 23. While million-pound Mallets pinched down for a sharp shoo-fly around the promontory, the rocky knob was scooped away in record time. Today a high fill, formed from its dismembered cap, stands high above flood stage.

Daylighting has other disciples. Southern Pacific, for example. The system which runs its locomotives backward to keep the smoke behind the engine crews, is doing its best to relinquish the title of America's most undercover railroad by converting short rat holes into well-graded open cuts, with suitable snow-fence protection.

Even the prairie-blessed Missouri

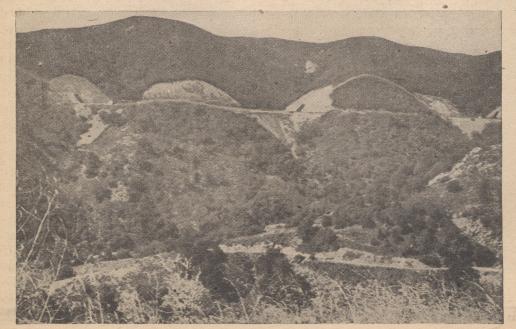


Pacific regards its few Ozark tunnels as more of a nuisance than a novelty and in 1943 wrote two of. them off in its annual report. These were the historic Barrett bores, located some sixteen miles south of St. Louis. Constructed in the 'Fifties. when the ambitious Pacific was pushing its trackage into the wilderness, they had long since blocked the passage of oversize shipments. Widen them and raise the keystones? Why bother? It was simpler to shove new trackage to the south, where the parallel ridges were shallow enough to be plowed through from top to bottom. Today the midwest shipper thumbs through his standard clearance book and finds no reason to route his bulky loads by another carrier.

BUT there are plenty of natural barriers which can never be brushed off with a bulldozer. Take Mount MacDonald, set neatly athwart the Revelstoke Division of the CPR's Columbia District. For



SOUTHERN PACIFIC has greatest American tunnel mileage. Its longest smoke hole, at Norden, Calif., measures 10,326 feet between portals; is supplemented by dozens of lesser tunnels and snowsheds. Below: Southern California corridors





Photos by R. B. Trewler, Truckee, Calif., and C. E. Parker, 1715 Sutter St., Vallejo, Calif.

years the main line through the lofty Selkirks twisted painfully around its base, making the equivalent of seven circles as it fought its way over hazardous Rogers Pass. Snowsheds and rigid track patrols could not ward off the thundering slides which in 1910 blotted out the station buildings there and delayed for days the puffing pigmies which carried Canada's commerce from coast to coast. Here an under-mountain gallery would be a positive blessing.

Thus it was that in 1913 work began at Glacier on the eight-mile-long Connaught Tunnel; a double-tracked, five-mile cutting through the range. Seven million dollars' worth of blasting saw the task completed three years later. On December 6th, 1916, Engineer Rutherford eased Extra 3869, comprising fourteen loads and twenty empties, west-bound; cautiously down the inper-

ceptible grade of the tangent bore which had just clipped four and one-half miles from the transcontinental mileage, reduced summit elevation 552 feet; eliminated 2,600 degrees of track curvative, and neatly dismissed the operating hazards created by thirty-foot average yearly snowfalls.

Nowadays six crack passenger trains thread the Connaught each twenty-four hours, with enough redball freights and pusher engine movements tossed in to make life interesting for any mountain dispatcher. Then there is always the possibility of a four-footed extra, in the form of a grizzly bear, looking for a spot to hole up for the winter, in the dark depths of the transportation cave. The story goes, too, that at least one tunnel patrolman is so slight of build that he cannot make headway against the blast of the big Diesel-powered ventilating fans, and has to be hauled



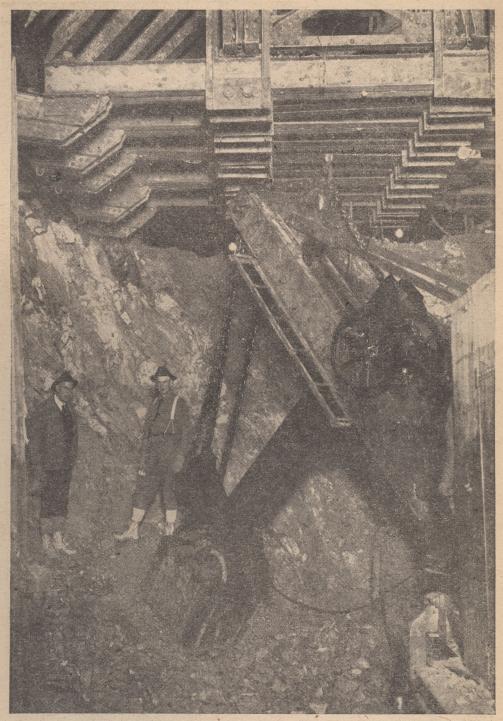
Photo by C. T. Steeb, Billings, Montana

SECOND LONGEST in the Western Hemisphere, the 32,798-foot Moffat Tunnel clipped off 173 Rio Grande miles between Denver and Salt Lake City. One thousand men, working over a period of four years, brought the D&SL job to completion in 1927. Automatic window washers, electric-eyes which indicate the density of smoke within the shaft, and America's longest continuously welded rails are unique features of present-day operation. Rumor has it that the railroad is now investigating the possibilities of electrification, using low-cost Pacific Northwest power. Below: East Portal, as it looked during construction days



Tunnels

31

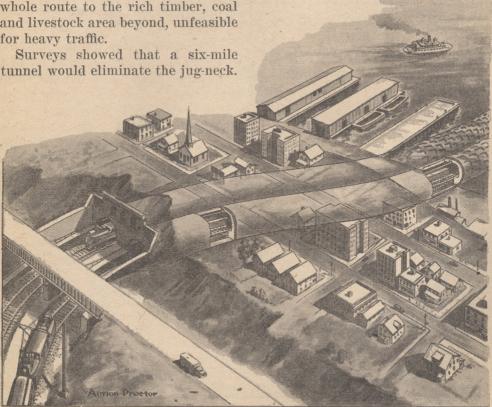


TRAVELING CANTILEVER GIRDER used to support soft ground in the Moffat, sped excavating and timbering operations. The big Continental Divide project paid for itself many times over during recent war years, when Rio Grande hauled one out of every five tons of war supplies shipped to the Pacific Coast

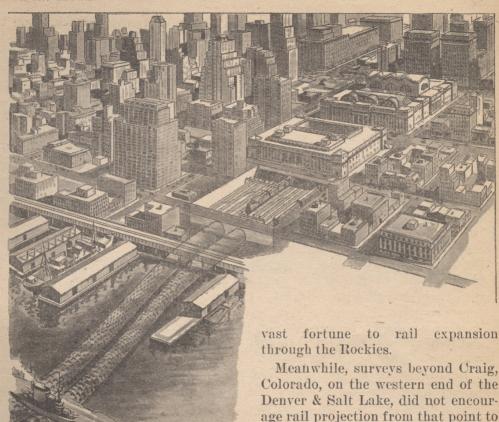
out by the agent at Scenic after each inspection tour.

THE same snow conditions which had plagued CPR's Rogers Pass route came to grips with David Moffat's uncompleted Denver & Salt Lake Railroad every winter. Storms of incredible fury lashed the horny shoulders of James and Arapahoe Peaks, beyond Newcomb, Colorado. There, lofty Rollins Pass, reached by an amazing succession of hairpin turns, a spiral curve and innumerable giant trestles, took the brunt of the blizzards, avalanches and frost heaves which are frozen hell on any man's railroad. Coupled to that, a four percent ruling grade make the whole route to the rich timber, coal and livestock area beyond, unfeasible for heavy traffic.

The city of Denver, which stood to be the principal beneficiary, went to bat for the project in the face of heavy opposition from less favored Colorado areas, particularly those cities located along the line of the Rio Grande, in the valley of the Arkansas River. Long litigation in the Colorado Supreme Court came to an abrupt end when high water swirled through the Royal Gorge in 1921, inundating Canyon City and Pueblo. Denver turned a deaf ear to cries for state assistance in the matter of flood control until its own newly doctored bill was given kindlier consideration. As passed, it provided



BUSIEST underground trackage on a heavy-duty railroad passes through Pennsylvania Railroad's twin tubes under the Hudson River. Junction of the last shields on October 9th, 1906, was followed by regular train service four years later



funds for the "improvement region benefited by the tunnel.' This method of financing, wherein a district guarantees a bond issue, and constructs and leases a property to a privately owned railroad, was novel and, as matters turned out, profitable.

Using methods of construction efficient beyond the wildest dreams of early tunnel workers, including a supplementary, pioneer bore; traveling cantilever girders, to hold back loose rock while timbering operations progressed; and electric muckers which cleared away rubble easily and swiftly, the job was carried to fulfillment on February 27th, 1928, and named in honor of the practical dreamer who had devoted his whole

the Utah capital. Instead, it was decided to swing a line southwestward down the headwaters of the Colorado River to Dotsero, where it would tie in with the Rio Grande, reducing Denver-Salt Lake trackage by more than one hundred and seventy miles.

Nobody anticipated, then, the tremendous part the Dotsero Cutoff would one day play in speeding a vast army to victory. That was to be the undeclared dividend of the Moffat Tunnel Improvement District.

VEN before the Moffat could lay claim to top honors among American railroad tunnels, Great Northern was hewing away at the backbone of the Cascade Range, making swift headway toward completion of a still longer corridor, measuring forty-one thousand feet between facings. Chip-



Photo by George M. Hill

ping out large fragments of this Washington State obstruction was no new experience for the Big G. Jim Hill's original line had see-sawed its way across Stevens Pass by means of a temporary system of switchbacks, involving four reversals of trackage. While the first trains in and out of Seattle were shuttling over its breathtaking grades, construction engineers were busy driving a permanent line through the upper strata of the big hill at a point where its flanks were separated by some two and one-half miles of formidable granite. It took the better part of eight years to lance a lane between them, and the finished job was nothing to write prosy travelogues about. Winter weather at those heights was rugged, and before GN was through, it had hammered together eight miles of supplementary snowsheds and was shelling out a cool six hundred-thousand dollars annually for drift removal.

Then there was the problem of ventilation. In February, 1903, suf-

NINE TUNNELS of Vanderbilt's \$10,000,000 South Penn. Railroad never received their baptism of locomotive smoke, for the project was sold to the PRR and abandoned before a yard of track had been laid. Today the great Pennsylvania Turnpike tops the entire roadway. The long abandoned openings have been handsomely faced, illuminated and, where necessary, ventilated

focating smoke nearly gassed out a trainload of passengers when a double-header lost its feet in the bore. Only the quick action of a deadheading fireman by the name of Abbot, who cut off the coaches and allowed them to coast back down the tunnel, prevented a loss of life unparalleled in railroading history.

Taking a cue from the Baltimore & Ohio, which had completed the first heavy-duty electrification project in America when it sparked juice through its Baltimore Tunnels in 1895, Great Northern wired the original Cascade in 1909.

But the obvious advantages of a longer, lower-level bore had long

since become apparent. The new and greatest smoke hole of them all, begun in December, 1925, was the consummation of this dream. Never in all construction history was a project engineered with greater vigor. No item had been overlooked. Even when a subterranean river rushed into the tunnel at the rate of ten thousand gallons per minute, it found a diversion sluice already prepared for it.

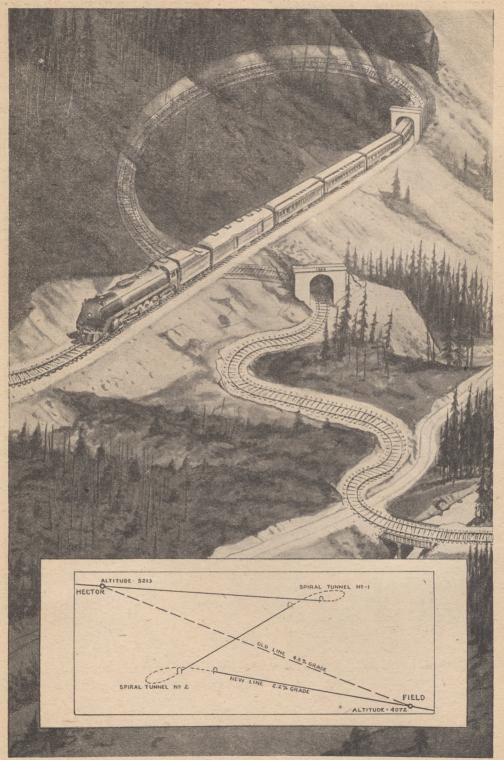
In 1928, President Coolidge took off his Indian war-bonnet long enough to press a button on his desk in Washington, D. C. Over the nation's telegraph wires a tiny electrical impulse found its way to the deep recesses of the Cascade. Almost before growling gelatin could heave the headings into a shapeless mound, surveyors proudly announced that their calculations had miscarried by a matter of a mere half-foot.

Like its predecessor, the Western Hemisphere's greatest tunnel is electrified. With new approaching trackage, it represents a twenty-five million-dollar investment—money well spent, in view of nine difficult miles of 2.2 per cent trackage eliminated. Gone are the days when steam pressure in Great Northern pusher Mallets dropped from two hundred pounds to a mere seventy, simply because fires could no longer burn in the exhausted air of the five-hundred-foot-higher, old Cascade.

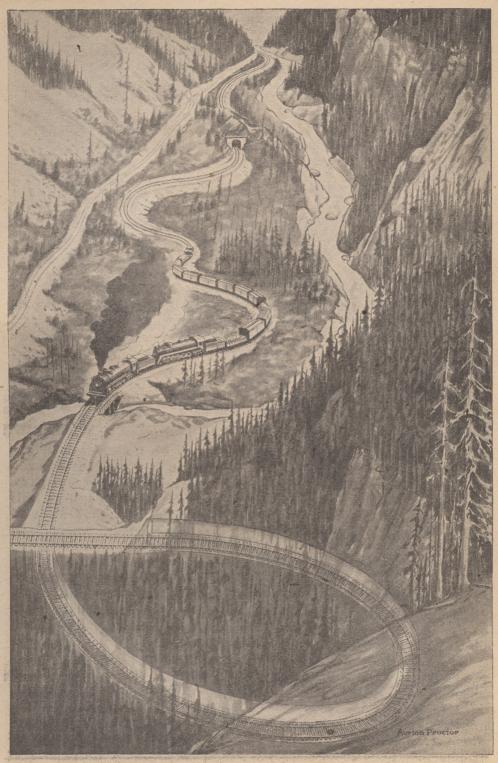
THERE are only five railroad tunnels in existence which exceed the New World champion in length. Curiously, all of them are in the Alps. Heading the list is the famous Simplon, whose twin bores link the Swiss Rhone valley with Iselle, just across the Italian frontier. 64,971 feet in length, it was completed in 1922, at a cost of approximately twenty million dollars. Then, in order, come the Etruscan Appinine (60,720 feet); St. Gothard (48,927 feet); Loetschberg (44,685 feet); and Mt. Cenis (42,150 feet).

As the latter proved a testing laboratory for the Hoosac, in the matter





UNIQUE from an engineering standpoint are the Spiral tunnels which halved the



gradient of CPR's big hill out of Field, B. C. Schematic drawing exaggerates the curves



NOT THE LEAST of Europe's reconstruction problems will be restoration of masonry at much-bombed tunnel mouths. Here a Slovakian arch is shored up, prior to resetting of the stones

of compressed air drilling, so another Alpine project laid the pattern for America's most unusual tunnels—the CPR spirals above Field, British Columbia.

Until 1903 the main line of the Canadian Pacific clambered out of the Kicking Horse valley by means of a heart-breaking 4.5 per cent gradient which was a veritable ski-slide in reverse. The close-spaced canyon walls defied any attempt at relocation until construction engineers recalled a neat trick which the burrowing Swiss had used to reduce the slope of their St. Gothard line. Entering a mountain side they had proceeded to carve a sweeping circle through it, emerging at a higher elevation, crossing the original line: then plunging back into the slope for a second complete ascending loop.

Canadian Pacific followed suit, varying its new track pattern in only one respect. For want of a mountain long enough to embrace two circles of track, it plunged its rails into the north flank of the defile: next swung back over the stream and hammered its way into the south wall for a second spin. The resulting spiral tunnels present the unique picture of a railroad train heading in three directions over parallel track for a matter of two miles. In the course of the intricate process the rails gain a vertical height of nearly four hundred feet between outside portals; all on an actual grade of 1.6 per cent.

No STORY of railroad tunnel work would be complete without some mention of underwater passages. On

the basis of cost, the Pennsylvania's Hudson and East River tubes head the list of achievements in this field.

When Gustaf Lindenthal's ambi-

tious bridge route proposal bogged down around 1900, PRR investigated the possibility of underpassing the two great natural barriers. Because a large portion of any such tunnel would lie, not through hard rock, but silt, cast-iron sleeves were proposed, made up in twenty-three-foot sections, bolted together and lined with two feet of concrete. Many engineers were dubious. They believed that the weight of heavy trains would depress the entire structure, setting up terrific stresses at the joints and jeopardizing railroad operation. To prevent such action, the original contract called for the use of numerous screw piles -long pipes which were to be driven down to bedrock through holes provided in the bottom plates of the shell. In actual practice, however, it was found that such tubes showed little tendency to shift, rising and falling no more than an eighth of an inch with the tides. and settling only slightly during the first year or two of operation.

The real danger in this and similar shield boring, is reserved for the tunnel workers; not the structure. Faced with the constant prospect of breaking out of hard rock into mud or sand, the engineer calls the air-lock to his aid, depending on its artificial pressure.



WARTIME enlargement project in Southern Pacific's Tunnel No. 6, between Santa Margarita and San Luis Obispo. Supplementary bore above it will carry smoke

away

to hold back the soft earth and moisture. Working under such conditions is exhausting at best—disastrous, when the silt is thin enough to "blow," letting down a column of river water from above.

It is high tribute to Vice-President Rea, who integrated the vast one-hundred million dollar New York terminal improvement project, and to the staff of brilliant engineers assisting him, that the assignment was carried to a safe and successful conclusion in 1910.

TODAY there are more than fifteen hundred railroad tunnels in the United States. They range in length from the little thirty-foot Bee Rock bore, located on the Cumberland Valley Division of the Louisville & Nashville, to the great Cascade corridor already described.

Southern Pacific maintains more smoke holes exceeding a thousand feet in length than any other American carrier; its fifty long bores totaling twenty-three miles of covered trackage. Then, in order, come the Baltimore & Ohio (thirty-seven tunnels, or 81,324 feet); the Pennsylvania (thirty tunnels, or 97,246 feet); the Louisville & Nashville (twenty-five tunnels, or 48,512 feet); and the Norfolk & Western (twentyone tunnels, or 43,801 feet). Four other lines, the Great Northern, the Canadian Pacific, the New York Central, and the Chesapeake & Ohio. show aggregate totals of 78,286 feet. 52,494 feet, 49,359 feet and 48,242 feet, respectively, but with materially fewer individual bores.

Of the more than four hundred tunnels in this "thousand-foot-plus" category, only forty are now electrified. In the light of modern developments it does not seem likely that

their number will be greatly increased. For the widespread adoption of the Diesel locomotive has changed the operating picture. It is not that these oil-guzzlers are smokeless. Far from it, as any tunnel gang can testify. But within their protected cabs, an engine-crew can thread the longest smoke hole in comfort.

Take our old friend the Hoosac. When the Boston & Maine set about Dieselizing its Fitchburg Division a couple of years ago, the big motors growled at undiminished speed past the stubby juice jacks standing by at North Adams terminal. Blue haze columned up through the steel nostrils of the new high-capacity ventilator which had just been installed at the top of the central shaft. Remotely-controlled variable-pitch propellers sucked the fog out of the corridor at the rate of 270,000 cubic feet per minute.

That was the beginning of the end for straight-electric, as well as steam power, on the Route of the Minute Man. Before you read these lines the last of the catenary poles at Hoosac will be burned off level with the ground—the first subterranean electrification project to bow to the new invader.

On the other side of the ledger there are unofficial reports that the Pennsylvania will start work shortly on extension of catenary west of Harrisburg. Included in this white-coal assault on the Appalachians, plans call for an eight-mile tunnel near Hollidaysburg. The object would be to eliminate the spectacular but difficult Horseshoe Curve. It will be a strange quirk of destiny if America's longest tunnel is buried deep in the bosom of the same flinty mountain which bears the scars of our first diminutive railroad bore.

North American Railroad Tunnels

Over One Mile Long

Name	Location	Railroad	Length Ti	Facks	Ruling
Cascade	Berne-Scenic, Wash.	GN	41,152	1	1.57
Moffat	East Portal, Colo.	D&SL	32,798	1	0.90
Connaught	Glacier, B.C.	CPR	26,518	2	0.95
Hoosac	North Adams, Mass.	-B&M	25,081	2	0.50
Mt. Royal	Montreal, Que.	CNR	16,645	2	0.60
Hudson River	Penn. Term., N.Y.C.	PRR	15,600	2	1.90
East River	Penn. Term., N.Y.C.	PRR	14,172	4	1.50
Snoqualmie	Hyak, Wash.	CMStP&P	11,890	1	0.41
Park Ave.	G.C.T., N.Y.C.	NYC	10,440	4	1.02
No. 41	Norden, Calif.	SP	10,326	1	1.47
Stampede	Martin, Wash.	NP	9,834	1	0.74
St. Paul Pass	E. Portal, Mont.	CMStP&P	8,774	1	0.20
Detroit River	Detroit, Mich.	MC	8,390	2	2.00
Sandy Ridge	Dante, Va.	CCC&O	7,854	1	0.50
No. 26	Hasson, Calif.	SP	7,369	1	1.00
Howard St.	Baltimore, Md.	B&O	7,341	2	0.80
No. 35	Spring Garden, Calif.	WP	7,335	1	0.70
B&P	Baltimore, Md.	PRR	6,994	2	1.34
Edgewood No. 2	Abbott, Ill.	IC	6,994	- 1	0.00
No. 25	Tunnel, Calif.	SP	6,976	1	2.00
Big Bend (Old)	Hilldale, W. Va.	C&O	6,500	1	0.42
Hagans	Hagans, Va.	L&N	6,244	1	0.30
No. 1	Wrights, Calif.	SP	6,207	1	0.27
Big Bend (New)	Hilldale, W. Va.	C&O	6,168	1	0.15
Boulder	Amazon, Wash.	GN	6,145	1	1.30
St. Clair	Sarnia, Ont.	CNR	6,028	1	2.02
No. 37	Chilcoot, Calif.	WP	6,001	1	0.50
Aspen	Aspen, Wyo.	UP	5,941	1	0.40
No. 2	Glenwood, Calif.	SP	5,792	1	0.28
No. 43	Jasper, Nev.	WP	5,671	1 ,	0.36
No. 3	Glen Frazer, Calif.	AT&SF	5,596	1	0.80
No. 18	Peninsula Jct., Ore.	UP	5,436	1	0.26
Otisville	Otisville, N.Y.	Erie	5,314	2	0.15
Quebec	Wolfe's Cove Br., Que.	CPR	5,288	1	0.80

Not in the Contract

By HARRY BEDWELL



SPRAWLED on the camp cot in his boxcar quarters, Eddie Sand discarded ragged sections of the newspapers a brakeman had tossed off to him in passing, and brooded. Outside, the handful of dilapidated buildings that made up the desert train-order station of Gravity clung to the main line and passing track. The high iron ran a bright thread east and west to dim horizons. Glittering sunlight poured over the scorched gray flats. The silence dragged. Even time seemed reluctant to move.

Eddie considered his position with

some bitterness. Loyalty was a good deal like an exaggerated case of love at first sight; in the initial ardor you were apt to promise more than you were willing to perform in the long run. But even when the war was on, "Buck" Barabe had had a hard time trying to persuade Eddie to handle all this undesirable territory—second trick in a livid vacuum. Then as the summer wore on, and the sun sweated fifteen pounds off him, the operator began to loath everything

Eddie Sand Showed 'Em Who and What for in a Little Mixup that Called for Making a Ring-Tailed, Pole-Climbing Monkey out of an Eminent Brass Pounder



connected with the parched strip of sand known as Gravity.

Once the war emergency was over, Eddie figured he'd blow the works. But traffic was still booming. Trains loaded with boys returning home from overseas glutted the lines, and it was up to the old-timers to see that things were kept moving. Feeling sorry for yourself didn't help matters one damn bit, either, yet what could you do about it. Nothing. You could— The squawking of flanges on

to his reverie.

The signal maintainer's gas car waggled and snorted out of the solitude. The little machine looked like a humped-up primordial bug scuttling along on her stubby wheels. She squealed to a stop as Leo, the maintainer, maneuvered his craft to a stand on the main iron just outside. Then Leo lifted his voice above the pant of the two-cycle motor.

"Eddie-e-e!"

The afternoon sun, a platinum blob in a smouldering sky, stabbed Eddie in the back as he crossed to the

noisy machine to see what was up.

"Got to change out a rail," Leo shouted to make himself heard. "Be back before you go on duty. The section gang's knocking off early to go to town for supplies, and I'm going along. You'll get so you bite yourself, sticking around alone with nothing on your mind. Come on," he invited.

Eddie let himself down gently on to the hot cushion of the narrow seat. The exhaust of the car spanked the silence as they rocked down the main line. The sluggish air sliding up from the canvas screen rasped the op's face like a thin file.

They overtook the section gang on their big motor car, which was dragging a trailer with a thirty-twofoot rail slung between. Leo had to reduce his brawling speed to their deliberate pace as he came up from behind. They all paused while the gang dropped the rail and some tools at the place where the change-out was to be made; and then they chugged on to a takeoff—one of the platforms built up at intervals alongside the track, on which section foremen and maintainers could park their machines out of the way of traffic while at work.

The little party moved in a dead world of white sunlight and empty spaces. They appeared to float in an element more dense than air. The Mexican nationals stirred visible currents as they bore down on the clawbars, pulling the spikes. They lined up on either side of the defective rail, took hold with their double tongs and carried it away, replacing it with the new one. The men with mauls swaved with rhythmic grace as they spiked in the new rail. The strokes multiplied swiftly across the dull gray waste; then the bristling silence absorbed the echoes, and time stood still again.

Eddie helped Leo bond the rail joints, connecting up the track circuit with the block signals. After that they headed back to Gravity, while the section gang delayed to gather up their tools. Leo squeezed the circuit breaker in his left hand and widened the throttle for top speed. He was in a hurry. He didn't want to retard an early start to town. He knew exactly how much the little motor would take and he made the stubby wheels screech as they grabbed at the rails. He was anticipating his monthly evening where electric lights glowed.

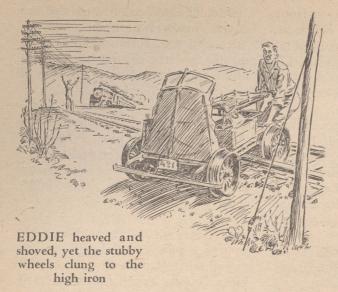
A freight train was stretched the length of the passing track at Gravity, blocking the way to the maintainer's toolhouse where Leo would have to store his buggy, so they came up the main line.

"I told my wife to make me a list to fill at the commissary," Leo explained above the racket of the machine, "so I'll drop off here at my place to pick it up and change my pants. You run her up to the station and ask the crew of that freight to cut her in two so we can cross over and put the car away. I'll be right up to help you roll her across."

He slowed and dropped off at his gate and ran into the house.

EDDIE had no experience in the operation of this flimsy craft, except from infrequent observation while riding with Leo. He intended to open the throttle to pick up lost speed, but he moved the spark instead. Instantly the motor stopped sputtering and breathed a long, regretful sigh. Then it blew off with a ragged burst and a cloud of smoke, and died.

The crews of the waiting freight had collected at the station. Aroused



by the blast, they came out to shout whimsical advice to Eddie as he tried to revive the sulky motor. He recognized "Hi" Wheeler's penetrating howl, when that ramshackle brakeman offered his best judgment on how to make an internal combustion engine behave. Hi flapped his arms and brayed in delight, while Eddie tugged and sweated at the levers. The car began to roll backward.

"Kick her in the pants, Eddie," Hi yelled gleefully. "You gotta show 'em who and what for."

Eddie found the brake and set it. He looked the pig-headed thing over with an anxious eye.

To confuse the situation still more, the block signal far down beyond the west end of the passing track suddenly flung up an arm, warning that a train was approaching from around the curve. Eddie would have to remove the gas car from its path immediately.

The main line there was graded up to a height of some three feet. He'd have to dump her down the embankment. He ran out the long handles on either side, and lifted; but the car seemed welded to the rails. He heaved and shoved, yet the stubby wheels still clung to the iron. That fifteen pounds he'd sweated off had sure weakened him.

The hoot of the locomotive's whistle bounced across the landscape. A passenger train trailed out of the curve and glided into the straightaway. More penetrating directives from Hi Wheeler drifted to Eddie on the hot air. The op struggled

grimly, and, in a burst of scared energy swung the front wheels off the rails and dragged the car around, heading it sidewise. The hind wheels hung up on the inside of the outer rail, while the train was coming at him like a swishing rocket.

Hi Wheeler detached himself from the station and ran down the main line in the face of Number 54, flagging her down. The engineer checked his rambling train sharply. Eddie ran the handles out to the rear of the gas car and renewed his struggles. The hind wheels came up over the ball of the rail with great reluctance, and then the machine skidded willingly to the bottom of the fill.

The engineer of Number 54 had kicked a shot of air under her for a quick stop, and he drifted as he recharged the train line. His fireman gave Eddie the bad eye from high above in the cab as the locomotive ground past in the slackening grip of brakeshoes. A brakeman stared at him with bored compassion from a vestibule window. Number 54 picked

up her speed. The next instant Buck Barabe, like a prowling old wolf, scorched Eddie with a malevolent look from the rear platform of his business car as it rolled by.

"Obstructing traffic!" the Old Man

boomed. "That's sabotage!"

Sabotage your eye! Then why was Barabe skyhootin' around in his private car, adding to the burden of his already overtaxed division, using up precious motive power that should be hauling food supplies for Europe and trainloads of returning troops? Likely he'd smelled trouble, and if his nose was as acute as it used to be, he'd find it out here on the desert end. There was plenty of it around.

Barabe had once given Eddie a gold watch "for services above and beyond the call of duty," and he'd been mighty bland when he'd talked him into this desert job. But he'd also bounced Eddie higher than a kite for what he termed insubordination once, when all Eddie had done was give his frank opinion of a trainmaster to his face in the heat of a controversy. Now the Old Man was acting as if he'd be tickled to pull the pin on him again.

Ho-kay and all right. That would be an easy way out of this simmering pit if he did tie the can. Except it'd

sure scorch your pride.

Number 54 rolled away into the heat shimmer.

They'd brought Barabe back from wherever such ancient autocrats retire to when they're let out for age, and had made him General Manager, after the regular incumbent had tied up the railroad in the first rush of war traffic. Barabe was still railroading in the style of the early nineteenhundreds—with an iron hand in a thin silk glove. The hell of it was, Eddie grudged with disgust, it had

worked. The railroad had carried the heaviest loads slung upon it.

Leo and the section gang arrived and dragged the gas car up the embankment. It was time for Eddie to take over second trick.

A GUSTY wind swooped down from the high pass. It carried just a faint tinge of the altitudes to remind you that there were places on this earth where the sun didn't blister.

Fifth 615, a dead freight, as stagnant as stranded driftwood, still occupied the passing track, while more critical trains stormed by. Train and engine crews from the transfixed schedule overflowed the chairs and the telegraph table to hunker and sprawl upon the floor, waiting without patience till the procession subsided and the dispatcher could move them. They greeted Eddie with sour jocularity, making meat of his struggles with the maintainer's gas motor.

"Seemed like you kinda goosed her in the wrong spot," Hi Wheeler observed with somber concern. "Them spidery carts are quibbly and you gotta control 'em with a firm but gentle hand."

Hi Wheeler was hind brakeman on Fifth 615. He was an old comrade of Eddie's, his playmate in numberless lighthearted escapades on a score of railroads in their careless boomer days. After Eddie's return to service during the war emergency, Hi had followed, coming to this division to be near his friend.

Fifth 615 had dragged in and cut of half the blind sidings they had encountered so far on her trip west, giving way to the hotshots; now the dispatcher held them here interminably at an open train-order station, where he could lay hands on her when a rift in the priority traffic occurred. The crews watched the military cavalcade trample by with dark resentment.

Hi leered at Eddie.

"This guy," he cautioned the others, "used to be a sure-enough rail-roader. If he's as good as he was, and only half as effective as he thinks he is, he will get us out of this hole in hell immediately and without further delay."

Aside from his growing distaste for this desert job, Eddie's day had been blighted by his encounter with that gas car. He gave his old confederate a look intended for a worm.

"I don't enjoy tramps and other varmints lousing up my office at any time," he gave flat notice. "I'll move you out of here just as soon as the good Lord and the dispatcher will let me."

Hi sat on the floor in line with the other four brakemen, his back to the wall, his lanky knees tucked up under his chin. He took a bearing on Eddie down the length of his long nose.

"He talks like he'd just come out of Washington," he remarked dismally. "I'll bet he knows everything."

The four brakemen gave Eddie a dead pan scrutiny. Then they nodded their heads in unison, like a set of figurines maneuvered on a string. It was too much for Eddie.

"There ought to be a rule in the book," he declared, "disallowing trainmen to trespass in train-order stations, or even associate with the better class of personnel."

"Just like he'd come from Washington," moaned Hi in mock derision.

Eddie put on the headphone. It was evident immediately from the remarks of the operators all across the district that the first-trick man at Gravity had given a blow by blow description on the dispatcher's wire of Eddie's battle with the maintainer's car. Two or three of the first trick men still held the wire, retelling it to the second trick with colorful amplifications. In the quiet, after they had given their weather reports to the DS, the second-trick lady op at Planet chipped in her impressions of the affair in her acid-sweet, cultured voice.

"I should think it quite lovely riding about on the maintainer's nice little machine," she purred into her transmitter. "But one should avoid slowing up important trains while on a pleasure trip. They're so concerned about delaying traffic these times."

Eddie considered several rejoinders, none of them fitting replies to a lady on the dispatcher's wire with most of the operators across the district listening in. You couldn't even use the proper railroad lingo to expedite train movements with a woman on the line. If Buck Barabe was looking for trouble, he'd come to the right place. That gal at Planet would jaw his head off if he tried to straighten her out.

Only yesterday Eddie had listened in to an altercation between the lady op and the dispatcher. She'd told the DS firmly that he had mislead her by several minutes as to when Number 618 would pass her station, and it was his fault that she didn't have the orders out to hand up as that train went by. She was prepared to give him an argument—and did!

Before the war, the reverberations from the ensuing explosion as the dispatcher blew up would have rocked the district. Eddie had been stunned by his patience as he pointed out that it was her duty to be alert to all approaching trains. Operators who would take the battering of these desert jobs were scarce. The DS had to get along with what he had.

The section gang stowed their tools in the toolhouse, chattering amiably in soft Spanish at the prospect of an evening in town. They coupled the trailer to the big motor car and swarmed aboard. Leo sat on the high seat beside the foreman as they chugged away into the solitude.

THE crews of Fifth 615 brooded in moody, resentful silence. These men had taken a beating for endless months, and now there had come a slight lull in the traffic—just enough to catch a quick breath for the first time since the initial tidal wave had struck. In the brief pause everybody had let down. All hands had an instant to consider the hardships they had endured, to remember the harsh details of irregular and inconsistent meals, the endless strain of battling it out from one end of the division to the other and back again at all hours. You never got enough rest. When your sleep was only beginning to do you some good, the crew dispatcher aroused you to go out again.

For all those hectic months they had been keyed to slug it out with the mountains of reconversion materiel and homecoming servicemen who had to be moved. They had given whatever they had to keep the traffic flowing. Some of them had reeled under the strain and the heat in the desert. Some had gone down. But as long as they'd had their feet under them, they hung on and kept the schedules blasting.

Now that the worst was over, the brass hats had started to make tests again, trying to catch violators of the operating rules. They'd made the train-order operators hand up clearances with the wrong date on them, assessing brownies to crews who didn't catch the error. They'd throw a yellow board at a curve where the engineer couldn't see the block signal next ahead. If the hogger edged his engine beyond the yellow for a look at the following signal, he was in the soup. Some set out a single torpedo to see if the hogger stopped promptly and the flagman fell off the rear end at a run. They were trying to restore a grim discipline after it had been disorganized by the sudden glut of traffic. Under the strained conditions, the men resented this sudden harshness.

They had caught Hi Wheeler cold. Hi had been promoted to extra conductor. He was skippering a freight train, and he'd left most of it on the main line while he cut off six cars of livestock and shoved them onto a siding to spot at the pens to unload. He was short a brakeman; to make a quick job of the unloading he needed his hind man to help persuade the steers out of the cars.

Hi had it from the dispatcher that there'd be nothing along from his rear for an hour, and he'd arranged with the foreman of the section gang at work at this point to protect the rear end of his train while he was away. It was all in the interest of keeping the traffic moving without delay. And it was a perfectly safe operation.

But it was still against the rules. When a roving trainmaster caught him at it, Hi was in trouble. If he said the foreman was protecting for him, the foreman was in a jam. Therefore, Hi could offer no exact excuse.

There had been a hearing on that breach of regulations, conducted by a tough-minded assistant superintendent, and it had taken all the brilliant guile of the ramshackle railbender to talk himself out of that one. At that, it was likely his record which saved him from the disgrace of being bounced. Hi might break the rules without compunction, but he always played it safe. The super may have guessed that Hi had protection of his train that he couldn't name. He'd never caused a serious accident in all his time on the high iron. And the limber-jointed oaf could run a train.

But they'd demoted him—handed him back his brake club. Eddie had had to talk fast to keep Hi from picking up his marbles and going home. He still squirmed with defiance.

The suspense was growing by the hour, all along the line. The men were morosely rebellious and full of plain cussedness. They were spoiling for any sort of trouble that would relieve the deadly monotony of heading in and dragging out of sidings, and waiting. They'd done a job they said couldn't be done; had moved the war right up to the enemy's own home grounds, and all the thanks they'd received had been surprise tests sprung on them in the first letdown.

There had been no cheers for the railroaders. They were tired, harassed, and in a scowling temper. All of them, that is, except "Bricks" McLenon.

BRICKS was engineer of Fifth 615. He sat on the end of the telegraph table with his dumpy legs dangling, placidly smoking weedy cigars from a supply that bulged in his blue shirt pocket. His round, open face was as serene as a limpid pool, and about as expressionless. Bricks was a runner when he had the rights; but he could wait out the hours of

delay without fretting. He'd geared his life to an even tempo. He didn't waste energy on useless indignation when he had to hole up on the siding. But once in the cab, with the proper rights, he could make the time—and a little more.

Bricks' tranquil demeanor exasperated Hi Wheeler. A revival of the imp in his blood that had driven him to wander the rail lines of the country prodded him to an effort to break down the engineer's serene good humor. He scanned Bricks in brooding speculation.

"Mr. Hogger," he remonstrated with melancholy courtesy, "when you pulled away from that last siding, and you *snatched* out the slack from your train—when it got down to the caboose, it nearly tore us all apart. That crummy leaped nine feet off the rails," he upbraided Bricks, as he peered resentfully between his thin knees at the unperturbed engineer.

Bricks nodded cheerfully and blew a dense screen of smoke.

"You know what?" Hi demanded.
"The shock of the concussion knocked
me down, and the skipper's chair
climbed astraddle of my neck, and
kicked me with all four feet clean the
length of the crummy."

He untangled his legs and exhibited a pair of skinned shins.

"And I could show you a lot more injuries to my person, if you'd care to see 'em," he offered.

Bricks beamed and shook his head. "Besides," he allowed, "it was your fault there was any slack left in the train."

"My fault?" Hi challenged with bitter scorn.

"Yeah," Bricks nodded blissfully. "I was particularly careful to get all the slack coming out of the hole, because I thought mebby we was

headed for the barn and I wanted to commence to get there fast when you turned me loose."

Bricks mangled a fresh cigar and clouded the office with noxious fumes.

"I had her all tightened up, too," said the hogger, "but you was so blamed slow closing the switch and giving me the highball, that them last dozen cars must'a bunched again. When I got your go-ahead, thinking she was all snugged up—" Bricks' hand reached and plucked the atmosphere, as he gestured widening the throttle, "I started to leave town. She was tight all the way down till I felt the hind end bounce."

"Bounce!" Hi jeered. "Mister, that crummy looped!"

Conductor Conway was stretched out full length on the floor. His mistreated stomach was in violent revolt against eating too little out on the road where meals were rarely available at the right time, and eating too much when he got home dog-tired, and then tumbling right into bed. Conway drowsed in a fitful fever.

Hi Wheeler gloomily analyzed the gaunt feeling that was growing inside him and decided at last that he was hungry. Fifth 615 was eight hours out of terminal and their last meal. Maybe it was lack of food that made him feel like cutting his best friend's throat. He brought up the subject of eating.

"They got grub of sorts over there in that little old store across the tracks," he pointed out, "and I'm holler clean down to my heels."

Conductor Conway, with his hand on his ailing stomach, shuddered and rejected the idea flatly. Bricks said he still had plenty of cigars to sustain him. But the other four brakemen voted enthusiastically for grub. Hi collected cash donations from his brethren and went across the tracks, through the line of section men's houses to the red store that leaned in a disorderly heap hard upon the old desert trail.

In short order, the brakeman returned with cheese and crackers, raw onions, dill pickles and canned soup. The five munched and drank unheated soup gustily from the cans and washed it all down with ice water from the cooler. Observing them, Conductor Conway moaned and turned his face to the wall.

The dispatcher rasped his telephone bell harshly. Eddie pulled on the headphone and answered, "Gravity!"

"Copy four for Number 22," the DS ordered.

WALLACE STERLING sat at the train sheet on second trick that night. Old "Walley," Eddie's partner from their very beginning as kid telegraphers along the Missouri River bottoms! The op perked up at the sound of his old coadjutor's voice, but it developed that Walley, too, wasn't his usual masterful self. The slump had hit the dispatcher's office as well as out on the line.

Walley grumbled and grunted the order, chewing on it with dislike. Eddie hammered it out on the old typewriter. It was one of those endless "wait ats" clear across the desert end. It filled the entire train-order form and wore you out slamming it down on the ancient mill as Walley dictated it. After that, besides repeating it yourself when your turn came, you had to listen to every other operator repeat it to the bitter end as they droaned through each word, numeral, spelled out, enumerated and pronounced.

Eddie brooded on the times when

train orders were transmitted by Morse, which didn't require you to be hitched to the line like a mule to a post. Moving the schedules by telephone, with all the operators on the district listening in like neighbors on a party wire, was like working in a dark well full of tired, fitful voices.

It was wearisome, listening to the eternal repetitions. By the time the third operator had mumbled a quarter through the thing, the monotony of it clouded Eddie's mind. Only slightly conscious of what he did, he opened the book he'd been reading. Half-reading and half-listening, trusting to the DS to arouse him to repeat the order in his turn, he hung in a vague suspension. The mumble in the headphone grew faint as he became more absorbed in the shadowy world of the printed page.

Then Walley's arbitrary voice sawed through the two worlds Eddie was trying to inhabit at the same time—the one within the covers of the book, the other inside the headphone. Something clamored for his attention and he tried to assemble his faculties in one place. He was dead sure the op who'd been repeating the order hadn't got all the way through, so the DS couldn't be calling upon Eddie to begin his repeat. What the hell was biting Walley to cause him to interrupt and call for Gravity?

The dispatcher's harsh voice jarred

the wire again.

"Gravity, take if on from there!"
Eddie fumbled his way back to the
battered telegraph station and the

sleazy heat.

"Huh?" he said dumbly.

"Begin repeating that order where October left off," Walley instructed him coldly.

Eddie caught on then. The dispatcher was pulling a test on him. That rule in the good book which says that checking the repeat of other operators is one of the most important duties of all train-order operators was still in effect, and the DS was investigating to find out if it was being obeyed. Eddie should have been sedulously following the other ops' recital. Instead, he'd wandered off down an enchanted highway which some writer had dreamed up for him; and when Walley interrupted October, and told Eddie to take it up from that point, he couldn't even guess where to begin. The DS had caught him flat-footed. Eddie began a slow burn.

"Just a moment ago," he said plaintively, "a bug got in my eye. One of those big little woolly ones with long ears and a tail—"

"Can you begin repeating where October left off?" the DS broke him ominously.

"No," Eddie admitted, and let it go at that.

"Okay!" Walley grumbled. "It was a test. I'll have to turn you in for a failure."

Turn him in! Why, the overstuffed baboon! Ho-kay! Fine! And the back of his hand to Walley and his tests. Trying to spoil a good, conscientious brass pounder's sunny disposition. The big tub would discipline his grandmother in the way of duty. Ho-kay and all right! It was a long lane that didn't have a kink in it. He'd lay for that oversized swindler. If he ever caught him all spraddled out he'd sure slap him down. Eddie sizzled.

Hi Wheeler, propped against the wall, dragging on a limp cigarette, gave Eddie a bogey grin.

"Havin' a little trouble with the old delayer?" he leered.



"THIS GUY used to be a sureenough railroader," Hi Wheeler told the crew

Eddie scorched him with a withering glance.

"You was the guy," Hi reflected, "that told me there had to be discipline with which to run a railroad. I remember you sayin' it when I was quittin' cause they picked on me."

At that, Eddie grudged, there'd been plenty of omens, and he should have been alert to them. After all those tests sprung on train and engine crews, he might have known they'd work over the operators, too. It was just as important that they be brought under strict control. And, of course, Walley'd pick on him first.

DAYLIGHT was beginning to ebb from the endless vague flats. You could feel a hard tension crawling across the smoldering quiet, building up a formidable pressure. The thundering trains, headed into the sunset, roaring through the deadly silence, mile upon rolling mile of men and freight destined for far points, were a part of a schedule set up in the vast scheme of things. When all that power got set, there would be rending violence. It was sure alarming.

Well, just in case they were going to scrutinize all phases of his methods of keeping 'em rollin', he began a zealous check of his equipment, paraphernalia and facilities for work. He ran over the number of train-order blanks made up into pads, convenient to the typewriter so he'd be set to jot 'em down as fast as DS sent them, in the number required. He made a survey of the hoops in the rack, testing their catches to make certain they were

strong enough to hold the flimsies secure against the impact when the ashcat caught the hoop.

To forestall any possible mechanical failures, he went outside to see if the oil lamp in the semaphore was burning. From the ground there was no light visible; but there was too much daylight remaining to be sure. Eddie climbed better than half way up the ladder in a quick scamper and made sure there was no glimmer in the lantern. The light was out.

As he clung there staring upward, a blast of wind rocked the slender mast. The two blades of the semaphore reeled in the windy, vacant spaces against the empty sky. His head began a slow roll. He looked down quickly. The earth was far below and it heaved like a restless sea. His stomach began to crawl. Changing holds on the rungs with grim care, Eddie descended to the ground.

Back in the office, somewhat shaken, he pulled on the headphone.

"Mister," he explained into the transmitter, "the light in my order board has done gone out."

There was a short pause. Then the DS came back crisply.

"It says here," he said, "that operators must see to it that their signal lights are burning brightly from sundown to sunup."

"Where does it say that?" Eddie inquired incredulously.

"Right here in the superintendent's bulletins," the DS stated, "so you scramble up that pole and fill and relight the lamp right now."

"Who-me?"

Eddie's glance slid up the slim length of the silvery semaphore mast. The tip swayed dizzily in the upper reaches of the restless air. The order boards at the top flapped solemnly in the wind like a winged serpent about to take off. He shuddered and began a slow singe. Walley seemed to think he owned a chunk of this railroad. Pulling tests, and then trying to make a ring-tailed, pole-climbing monkey out of an eminent brass pounder.

The company employed highlyskilled signal maintainers, trained to keep all such apparatus in good working order. If the ops were edged into making these minor repairs, first thing you knew they'd be required to nurse all the signal equipment adjacent to the stations. It would be practically taking the bread from the mouths of Leo and his family, if Eddie did this job for which Leo should collect an overtime call. . . . Besides, that was a mighty rickety and restless spire to climb in the hurricane which was now and then raging. Eddie just didn't believe he was fitted to mount to such flimsy elevations.

"You sure it says the op has got to climb that frail pole," he demanded, "'way up there where it goes in the sky—and refill and rekindle the light?"

"In so many words—yes," affirmed Walley. "Pretty soon the old sun will be down," he warned, "and you'll need that light to hol'em up or keep 'em down the main iron."

"You know something?" Eddie inquired. "I think they had a couple of other lightning slingers in mind when they promulgated that bulletin. Anyhow, they sure didn't have me in their thoughts, because lofty places make me giddy. And in this present typhoon that's now blowing, I swear that pole bends and bobbles likes a buggy whip."

"You don't mean to say," Walley protested, "that you decline to do your duty?"

"Decline," Eddie murmured, "is not the word. I reject your whole hypothesis. Firmly."

Eddie nodded to himself.

"Look," he purred. "You've likely got any number of things you ought to be doing this very minute, so don't let me detain you."

Eddie grinned maliciously. Walley

had walked right into it.

"All you've got to do is authorize me to notify the signal maintainer to illuminate the board," said the op in a dulcet tone, "so he'll be reimbursed with overtime when he fixes it. Then you can forget the whole thing. We've got about twenty minutes till it comes on dark," he pointed out. "After which, if my board isn't lighted, I won't be worth a damn to you."

Eddie's phones gave off sounds as though Walley were strangling.

"Ho-kay! All right!" he stormed. "That'll make two reports I've got to turn in on your behavior tonight. Go ahead and call the maintainer."

"Seems to me," Hi Wheeler meditated, "you're havin' a time of it tonight, Eddie. You slippin'?"

ELATION lifted Eddie's feet as he made for the door to call Leo. Set a guy down behind a trainsheet and he thought he owned the road. He'd teach that ape to pull his tests on somebody else, not on an old-timer who'd cut his teeth on'em. He'd make Walley sorry he'd ever sounded off—

As he reached the threshold, a belated recollection seared across Eddie's brain. It stopped him dead in his tracks. He turned blindly and groped to his chair by the telegraph table.

Slipping! He'd sure skidded all over the highway. He'd put up all that ruckus to have the maintainer light his semaphore lamp, had brazenly bullied Walley into empowering him to have it done, and now he remembered that Leo had gone to town with the section gang, and wouldn't be back till all hours of the morning. Wouldn't that behemoth sitting up there in the cool comfort of the dispatcher's office bust a blood vessel laughing when he knew of this predicament? Life would be perdition associating with that masterful man if he ever found out about this.

Hi Wheeler's ramshackle figure, distributed luxuriously over a considerable space of the floor, caught Eddie's eye. His mind crystalized.

"Say, Hi, remember that night," Eddie mused aloud, and he seemed to drift dreamily into a pleasant fantasy, "down there at Cajon when you were switching out Barabe's business car, around two a.m.? You were spotting it over on the depot siding so the switcher could paste it onto the hind end of Number 3 when she came along.

"Yeah," Hi answered lazily, "what about it?"

"You coupled the engine on easy," Eddie reminded him softly, "so you wouldn't awaken the Old Man, who was aboard. You gave the hogger the take-it-away, and climbed up on the head-end steps of the private car as you moved off across the yard. Then just for the hell of it, you tried the door.

"That was the kitchen end of the car," Eddie continued, "and a switchman is always hungry at two a.m."

Hi's eyes gleamed as exultant memories spanned time and space. The cigarette dangled from his lower lip, as his mouth opened in an artless smile.

"Destiny," Eddie pondered, "guided your hand to that door latch, just to test the lock, like a good policeman on night patrol making sure everything was safe. There wasn't a fraudulent motive in your whole system when you took hold of the knob, but there sure was when you found the door would open.

"Barabe was sawing it off in his berth," Eddie wandered on, "and you just stepped inside the kitchen to see what the interior of a brass hat's business car looked like."

Hi nodded with slow delight.

"The first thing you noticed was a cold roast chicken in the pantry. Right after that a bottle of the Old Man's best whisky in a-locker."

The brakeman licked his lips.

"Next thing you knew," Eddie recalled, "you were headed out the door, with the chicken wrapped in a napkin and the bottle tucked under your arm.

"And then!" Eddie's tone sharpened prophetically. "The Old Man, always keenly alert to larceny by his hired hands, aroused himself and began to investigate the sound of the plate you dropped."

Hi's countenance split wide open in a succulent grin.

"Remember, how I headed you through the dark sidedoor of the station and concealed the loot in the baggage room? Then I let you out the back door of the warehouse so you could climb aboard your switch engine, put you safe when five minutes later, Barabe turned his flock of special agents out to hunt up the culprit."

"Doggone, Eddie!" Hi murmured, "that roast hen just melted in the mouth like ambrosia. And the squirrel juice! It made you float around the Cajon yard all warm and happy and peaceful. Everybody was your lovin' friend."

"And you know what?" Eddie moved in swiftly with a slick conjuration. "If it hadn't been for me, quickthinking and always prepared to protect a pal, there'd have been no chicken and grog. Instead, they'd have socked you in the jailhouse and tossed the key away. The Old Man was sure bent upon retribution that night."

Hi's pensive eye wandered back. "You sure saved the day that night," he acknowledged.

"But the fact is," Eddie cracked down suddenly, "you still owe me something for saving your neck. And it isn't much I'm asking in return," he explained elaborately, his eye fixed on his expression. "You don't mind the altitudes. Anyhow if you got bucked off that semaphore mast, you'd merely bounce a couple of times, then subside all in one piece. Me, I'm brittle. I break in pieces."

He studied Hi's bewildered look coldly. "So," he bored in, "suppose you climb the order board mast and fetch down the lantern. I'll fill it and light it, and then you can replace it so we can control the movement of trains properly at this station."

HI WHEELER came to with a sudden jerk.

"Hell, Eddie!" he pleaded. "I split the loot with you. Don't you remember? You et half the hen and—well, you had all the stingo you wanted."

"That," returned the op, "is beside the point."

Hi stared about with a daunted look. His four colleagues along the wall studied him critically.

"He'd never be able to fit his big feet into that little bitta ladder," one of them decided. "He'd likely get caught up there at the top of the mast, and we'd have to send for the big hook to get him down safely."
"See what your chums think of you," Eddie remarked with scorn.

Hi untangled his disorderly length from the floor and stood up. His wide-eyed glance moved deliberately up along the silver pole standing rigid against the sky. A squall caught the outflung signal arms at the tip. They flapped wildly, as the mast thrashed the air. Hi closed his eyes.

"Haw!" brayed his four consorts

in a derisive chorus.

Hi opened his eyes and eyed them maliciously. "If this ain't the damndest old granny outfit."

He whipped out his bandana and

folded it carefully.

"My dad," he remarked, "often warned me that what you don't see won't hurt you."

The brakeman strode out to the foot of the mast. He tied the hand-kerchief over his eyes, then pulled his hat well down. He fumbled for the narrow iron ladder and felt his way to the top of the insecure pole. There he took the lantern from its fastenings and backed down without hesitation. Pulling up the blindfold, he watched Eddie fill and light the lantern. Then he covered his eyes again and made another round trip.

"You Sears Roebuck brakemen," he harangued his brethren, "don't know but one way to skin a cat."

The four squatted along the wall looked demurely down their noses at the floor.

Just then a perishable freight rocked east, hurrying to keep her place in the parade of passengers. If she were overtaken she'd be driven into a siding to wait them out. The hogger had her all wound up. Eddie got an order up to the head end as it whiffed past, but as the hind brakeman swung out from the caboose to

snare the skipper's copy, a gust of wind shook the hoop and the stinger booted it. Eddie watched for the conductor to pull his engineer down and back him up for the missed order. But the skipper apparently trusted his engineer to read and safely follow orders. The hotshot blasted on into the silence.

"The hind end missed the order," Eddie reported, when he OS'd her by. "But he didn't come back for 'em."

"You're not doing a bit good tonight," Walley croaked. "Might just as well close that station out at that." He modified his rebuke. "Just so the head end got 'em, it'll be all right. Likely the big O can't read anyway."

First 1 floated at the top of the grade in the dark and came sliding down the incline, a silent comet, the wind sweeping her racket behind her in trailing thunder. Her emerald signal lights peered through the glare of her headlight, fair notice of another section of her train to follow. She burst on the station in a quick explosion, and was gone.

Traffic came to a boil. The dispatcher set Eddie to copying orders in rapid succession. He was in the middle of an order when Second 1 sprang the westbound block. Eddie checked the time while he continued to hammer the typewriter lustily, his back to the approaching train. With the wind in her teeth, he'd not be able to hear her approach. It took a passenger train at regular schedule three minutes and thirty seconds to reach the station from the time it threw the block, and he reckoned from his watch when she would be close enough to give her the board.

Walley bumbled over the order, trying to make up his mind where to meet converging trains. Eddie kept his watch in the corner of his eye, and at the estimated time after Second 1 had tripped the warning signal, he twisted in his chair for a quick glance over his shoulder. She was close at hand. That hogger had turned her loose down the grade, making up time. The headlight was right at the station door.

Eddie tramped on the peddle and blurted into the transmitter: "Break, till I clear Second 1."

He flung off the headphone, got the semaphore lever in a quick snatch and pulled the board scant seconds before the headlong locomotive erupted in a savage roar past the station. The engineer gave him an angry snort of the whistle, reprimand for being tardy.

A green streak caught in the edge of his eye as the engine roared by, a signal light indicating a third section was somewhere behind. Eddie cut in on the wire.

"OS, Gravity," he chanted, "Second 1, with green signals, by at 7:08 p.m."

"Green signals?" Walley challenged.

"Yeah," said Eddie. "Wearin' the

"That wind you said was blowing there must have increased its velocity."

"It ain't moderated a speck," Eddie edged off carefully, waiting for the payoff.

"Must have blown that green signal light over to you from some switch stand," Walley mocked. "Second 1 wasn't carrying classification lights. There ain't no third section of her."

EDDIE reflected carefully. A green streak had sure flicked him in the eye as Second 1's engine bolted past.

He'd been back in the game long enough to have revived the old habit of keeping his head in tight spots, being alert to every flashing item when a lot of them occurred at once. Going back over the abrupt passing of Second 1, he couldn't change his belief that she'd carried signals. But Walley was all set to bat his ears down if he persisted.

Eddie recalled the injunction in the railroad man's mythical textbook on procedure—that whimsical volume recorded only in the minds of operating men—which decreed that when arguing with the dispatcher, always be sure you are right... and then let him have his way. If he was wrong, it might catch up with him later. Meanwhile, you were heavily handicapped in an altercation with him. He could throw the book at you and you'd have to stand still for it.

Eddie eased away again, knowing that imminent time would make a liar out of one of them.

"Seemed to be carrying the Irish when she went by me," he remarked, and let it lay.

"Might just as well close up that station," the DS repeated.

Eddie pondered those times back there at the dim end of the careless road when brash regulations were fabricated by young boomers for their own edification, and to confound the brass hats. There was the law, quite prevalent and well-considered at the time, which carried beyond the standard rule that directed you in case of doubt or indecision to take the safe side. The boomer's notion went on to decree that when exceptionally uncertain of the situation at hand, you should take to the hillside. And in extreme apprehension, you'd better throw her over, give her a bucketful of sand and take to the brush. Those drifters could play on their fancies.

The dispatcher, who had completed a critical survey of current conditions as pictured on his train sheet, interrupted Eddie's reflections to bring up the grim present.

"Gravity!" he broke out. "Number 370 would have come out of Mercury when Second 1 got by him. 370's been on your signal for one minute and forty-five seconds. Her headlight is now staring you in the face, should you chance to glance out of your west window. How come you don't report these movements to your dispatcher? I can't run a railroad without prompt information from the operators."

Walley was on the prod tonight. Eddie's eye swiveled to the darkened window. No headlight, and no red block light specked the vast gloom. He eyed the transmitter, and then a thought struck him. He turned it over quickly. There was a shade too much deference in his tone as he kicked open the circuit and murmured obligingly

"No, sir, there isn't any headlight in my face. And yes, sir, my block is clear."

"Sacred cow!" Walley grumbled. Then he caught the slyly obsequious tone and he became cautious. "This railroad seems about to have a complete breakdown. What do you suppose is hanging that 370 up?"

Eddie considered the possibilities. He knew from reports heard on the Morse wire, that there had been three sections of Number 1 into Yarbo; but the third section had been cut off there. So Second 1 did have green signals into Yarbo, and there was an outside chance that the head end had failed to remove them when they got their running orders from that point.

If she did still carry the green, no opposing train would move against this non-existent third section without authority. And if the dispatcher hadn't arranged this protection, the road would be standing still in no time. Number 370, in the hole down there at Mercury, would remain there until Third 1 passed, or she was released by train order.

"Has that 370 got anything on Third 1?" Eddie inquired blandly.

Walley blew.

"I done told you there ain't no Third 1!" he stormed. "They cut her off at Yarbo. You had you an hallucination about the second section carrying green signals. Mebby you been too long out there on the desert. It sometimes makes you see double."

"Ho-kay!" Eddie subsided meekly.

"I'm just trying to make myself useful. Excuse me all to pieces. Only, if I was you I'd caution the op at Abila to make sure to see that Second 1 hasn't forgot and left on her signals."

The Abila operator, who had been delighting himself with these rejoinders, cut in.

"I got you," he chirped. "Second 1's on my block now. I'll mark her signals very special."

Eddie smouldered. It'd got so even your best friends would cut your throat behind your back. He'd sure been dumb to let Walley snare him with a test. Now, if the big ape caught him falsifying signals, he'd have to eat more crow.

THE strain of waiting for Abila to report the facts intensified, as he studied the circling minute-hand of his watch. He'd been moving fast when the green speck hit him in the eye; it might have been the reflection from a switch light. His assurance began to weaken. He flinched when

the Abila op cut in and warbled glibly.

"Second 1 by at 7:39 p.m." He paused to stretch the tension. "Wearing green signals!" he added gleefully.

Walley's voice went up in startled exasperation.

"Green signals!" he agonized. "What's he got them on for?"

He flipped the pages of his book and checked the running order he'd let her out of Yarbo with. It was clear enough. "Eng. 4240 run as Second 1 Yarbo to—" Not a word about displaying signals for a following section. The head end had merely neglected to take them down.

Walley belled Tango furiously.

"Stop that Second 1 right there without fail," he instructed the Tango op. "And tell the hogger to read his running order again, then take down his classification lights. After which, he's to make a report, complete in every detail, stating why he had 'em up at all. Don't let him proceed till he gets 'em down."

Walley sighed heavily.

"What a night! That guy will have my line all tied up, foolin' everybody by showing he's got a section behind him . . . Hello, Gravity," he picked up briskly. "Number 370 is sure stuck at Mercury waitin' for Third 1 that ain't even on the line. What are we going to do about that?"

"We? . . . Why, you great—"

"I know—I know," Walley mourned. "But 370 is a troop train and we can't let her sit there forever."

"Well, now," Eddie considered. "In that tone of voice, I might think of something."

Bulldozers of the Army had smoothed out the old desert roads and trails during training maneuvers, and it was now but a few minutes' drive by automobile to the next blind siding.

"Give me an order that'll get her out of there," Eddie offered, "and I'll' drive it down to him. But just remember, I'm doing it for Uncle Sam and for no other person whatever."

"Very pious and commendable of you," Walley sighed, and issued the order.

Eddie made a quick run to Mercury in his car, and was back at his station by the time 370 came out and roared by, her enraged hogger tearing a livid hole through the darkness.

While all this activity had been going on, Fifth 615's skipper became more and more restless. Suddenly he decided he'd stand for no more.

"Ask that blamed delayer when he's going to move us out of here," Conway instructed Eddie crossly.

"He says," Eddie relayed the DS's decision, "that just as soon as he can seize enough road for you to occupy, he'll get you going."

The skipper got to his feet.

"I'm going to the crummy," he muttered, and vanished in the darkness. Bricks followed him out, wandering over to check his locomotive.

The Yarbo yard bulged and disgorged a westbound freight train. The yardmaster practically kicked it out of his garden in the face of considerable varnish. He hoped somebody would make something of it, and came on the dispatcher's wire with a brief explanation.

"I've got to make room in this yard of mine, and no foolin'. Number 625 is standing on your main iron," he stated belligerently, as he dumped a long freight train in the dispatcher's lap. "And if she ties up your road—see if I care!"

"Sacred cow!" Walley yelled back.

"What am I gonna do with her?"
"That," the ringmaster decided promptly, "comes under the domain of none of my headache. From here out she's your baby."

He went off the wire with a muffled

explosion.

"She'll sure stab that 370 again," Walley checked his trainsheet and brooded aloud with dark forebodings. "First 24 is on the advertised; Second 24 is forty minutes behind her. Number 4, straight up, is now fifty minutes off, and she's hot and not to be bothered. I'll have to write a letter as long as your arm, if I hang up that streak of varnish."

He continued his somber reckonings.

"Third and Fourth 824 are holed up waiting to follow 370 into Yarbo, and now he shoves 625 right out in the face of everything. I just ain't got enough road to hold 'em."

Still, Walley could stretch the high iron to fit the traffic. He forced 625 out of Yarbo and tucked her into a blind siding in time so that she showed only a brief yellow block to barely slow 370. She met First 24 there, and then had time enough on the second section to move up to a train-order station. After that, the hogger of Second 24 made a brilliant effort to overtake the first section of his train. This again crossed up the DS.

But 625 moved better than was expected of her. She didn't use up all the time she had, getting into the clear at Tamarisk. She held enough on Second 24 to stab her thirteen minutes the way the passenger train was catching up on her schedule.

Second 24 was coming close at Gravity, when the dispatcher realized that he had put excessive restraint on her that wasn't being used by the freight train. He sought to take it up by annulling the order that would slow her down.

He called Gravity and Tamarisk impetuously.

"Copy a short one for Second 24 that's coming at you now, Eddie," he snapped, "and get it up without stopping her. Order No. 884 to C&E Second 24. Period. Order No. 877 is annulled."

It was easy as that to lift the restraint, but it put an amount of stress upon Eddie, getting it down at the speed which Walley talked it, repeating it and clearing her. Second 24's headlight was bright in the window as Eddie bolted for the door, trailing train-order hoops. The wind had blown the screen door ajar and the way was clear. Then, just as he reached the threshold, a gust came hurtling down from the high pass and slammed the door in his face.

The opposing momentum the wind had given it combined with the speed Eddie had gained at the exit caused a violent collision. The screen rasped a bit of skin from the point of his nose, while one knee struck the frame with a sharp impact. His left leg felt as if the bone had been shattered and his flesh pricked with a million needles. Tears half blinded him. A livid rage shook him with a blazing desire to commit second degree murder.

The hogger of Second 24 had choked her down, coming up against a red board. Eddie was able to limp crab-wise to the main line in time to toss the hoop at the cab in a blind cast. The ashcat speared it like a champion. Eddie nearly missed getting the second one up to the brakeman, who unexpectedly stuck his head and his lantern from the vestibule window of the coach directly be-



BACK IN THE DAYS.....

Harry C. Temple

hind the baggage car. He tried to lasso the stinger around the neck, and likely did. The hoop vanished.

Eddie limped back to the station. The brakemen, crouched along the wall, stared at him solemnly, and snickered. He tried to stoop for a chunk of ballast to heave at them, but his leg wouldn't bend. The stingers began whispering among themselves.

Eddie was surprised to note that the passenger wasn't picking up any speed after checking on the red board. In fact, she was still slowing. The hind end wasn't more than six carlengths beyond the station when she came to a stop. Angrily, he bet himself a quarter that in his haste he'd bulled the order, and that the hogger was returning it to him for correction. Yet a quick examination of the order showed no error.

"I got it up just in the nick of time," he told Walley, "but she

stopped anyhow."

"Yeah!" Walley bounced back.
"You've done everything but blunder an order, so I guess you had to pick this particularly important moment."

"Well, no," Eddie sighed. "The order is exactly as you gave it to me, and my clearance is correct."

"Then why'n hell did he pause," roared Walley, "when I was trying to keep him going at top speed?"

"That I wouldn't know till the brains of the varnish gets back to me, swollen up with wrath and full of bile. He'll likely have the answer at the tip of his tongue. Meantime, I just wondered in the back of my mind—do you suppose in the haste and confusion in which this occurred that you annulled the wrong order?"

"The wrong order?" Walley snarled. "Why, darn your blistered,

belittling-"

He broke off and the silence on the wire tightened. There was tragedy in his voice, when he raised it again.

"My Gawd! I annulled 877 instead of 876. Copy it over and make it 876 that's annulled. Then get it up to the head end as damn quick as you can."

One of the brakemen hunkered along the wall stood up. He took one of the corrected copies as it came from the typewriter, snapped on his electric lantern and sprinted toward the head end of Second 24. Taking a path beside a string of outfit cars in the station pocket, he avoided the conductor who came down from the rear Pullman and made for the station in majestic wrath.

"I can see the big O coming at me," Eddie announced blandly into the transmitter, "and it's Scrap Iron Hawkins. I can tell by the way his feet smack the ballast that he's going to take the shingles off the roof. Is there something particular you want me to say when he does?"

"Yes—and no," Walley sulked. "If you told him what I think, they'd put us both in jail. But in case you've got something special in mind, personally, you can tell it to him on your own responsibility."

"That'll be just dandy."

Eddie considered "Scrap Iron" Hawkins an incorrigible, brass-bound old he-wasp. Eddie had once inadvertently stopped the Sunshine Limited in this remote and torrid spot, when Scrap Iron was skippering that pet varnish. On that occasion the conductor had pawed up the earth, and reported the incident in all the black details he could whip up in his outraged mind.

The Gravity operator craved revenge. Scrap Iron seemed to think his gold braid entitled him to a free hand in his relations with associates

and exempted him from error. He was one of those old hundred-and-fifty percenters. Eddie was all set to go as far down the line as the big O cared to travel.

THE LIFT of Scrap Iron's feet was menacing. He laid a firm hand upon the knob of the screen door, and as he pulled, the wind edged into the opening and slammed the door in his face. Rusty dust from the ancient screen circled in the breeze and powdered the skipper's bright uniform, speckling even his countenance.

Eddie forgave the door for the hurt it had done him. The big O just stood upon the threshold and glared. He opened his mouth to blast. A sneeze overtook him; he convulsed and choked.

The brakemen along the wall broke into a short burst of raucous laughter. Then they subsided into deadpan silence, staring at Scrap Iron like expectant vultures. The atmospheric pressure went up fifty pounds to the square inch.

"What," shouted the conductor, "stopped us here?"

Eddie put a bright eye upon him. Scrap Iron hadn't encountered the freight brakeman on his way forward with the corrected order, and Second 24's own brakeman, who had the original order, was up there fifteen coaches ahead. The conductor didn't know why he'd been stopped.

"Your board is red!" Scrap Iron pointed out bitterly.

Eddie looked blank, turned to the brakemen and elevated his shoulders.

"He says the board is red."

The wooden faces along the wall stared incredulously at Scrap Iron. "Red!" Hi Wheeler croaked.

The big O was almost howling. "Will you tell me why we were

stopped here?" he demanded again. "The man wants to know why he stopped here," Eddie brooded.

"Always wants to know," Hi declared resentfully "Why don't he ask Washington? They know everything in Washington."

"A very, very pious idea," Eddie confirmed.

"This horseplay has gone too far," Scrap Iron raged. "Are you going to continue to delay this first-class train?"

Eddie appealed to the crew.

"You going to sit there and let this train be delayed?" he inquired.

The faces switched a gratified look upon him like a headlight. The heads nodded in emphatic approval.

Eddie had kept an eye on the brakeman going forward with the corrected order. He saw his lantern pause and swing up the ladder of Second 24's engine. Then he turned to Scrap Iron.

"I handed your brakeman an order as he went by," he offered hopefully.

"I can't find my brakeman," grieved the conductor.

"Goes around losing things terribly easy," Hi muttered. "Next thing. he'll mislay his train."

Second 24 whistled off. The hogger was leaving town. Scrap Iron wheeled in the doorway as his train began to move, throwing a bitter glance over his shoulder. Then he began to run. He pulled his cap down tight, tucked in his elbows and went into prodigious strides as he pursued the retreating rear-end of Second 24. His tiny electric lantern cut fantastic patterns in the dark.

It seemed for tight seconds that he would never make it. Then in a desperate burst he surged up under the tail lights. He made a wild clutch and grasped the grabiron. Evidently

he had enough breath remaining to drag himself aboard.

"This just ain't one of my days," Hi Wheeler muttered unhappily. "I was sure pullin' for old Scrap Iron—to get left."

Bricks McLenon came back and heaved his heavy bulk onto the farther end of the telegraph table. He blew foul smoke and amiably contemplated the row of melancholy faces. A gust of wind chased itself across the empty dark and died in the far distance. It reminded Bricks.

"Did I ever tell you about Andy Sharp's beard?" he inquired genially. "When he was goin' up the pass on short time, had his head a little too far out the righthand cab window, and a squall blew his whiskers up over his eyes?"

Hi Wheeler's long face twisted into an expression of repugnance as though he'd tasted something nauseous.

"Yes," he said offensively, "you have. Two hundred and eighty-seven times you've told it."

"That beard of Andy's," Bricks persisted imperturbably, "was sure luxuriant. A regular thicket. So when the wind blew it over his face, it wiped out everything in view, and Andy shot the air into emergency."

Bricks shifted his tattered cigar the width of his wide mouth, waiting for someone to ask why Andy Sharp had wiped the clock at the time mentioned. But the trainmen just stared at him with resentment. Their scornful looks would have subdued a less complacent man. Bricks, undaunted, took up the tale of Andy's beard.

"Andy stopped his train with considerable abruptness," Bricks beamed, "which slammed his fireman against the boilerhead. The ashcat staggered over to his side, looked out

front and back, and then he yelled at Andy to know what was the trouble.

"Trouble?" says Andy. "Didn't you see that wagonload of hay we just hit?"

Bricks paused again expectantly. "Hay?" mourned Hi Wheeler. "They don't grow hay up in the pass."

"That's just it," Bricks chortled. "It was Andy's whiskers that fooled him. When they blew up over his face, he thought he'd collided with a load of hay."

A plaintive wail broke from the trainmen. It rose to a derisive howl.

CONDUCTOR CONWAY'S pale face hung in the doorway. He sniffed the toxic fumes from Brick's cigar and shuddered.

"Tell that delayer," he ordered, "that we'll be dead on the law if he keeps us out much longer."

The dispatcher was in another hole. He'd either have to get Fifth 615 into the terminal before their sixteen hours were up, or else "patch" the crews—send fresh men to relieve them out on the line. There weren't crews available for the patch so Walley would have to move her.

Eddie slapped down the orders as the DS issued them rapidly.

"Get yourselves together," he called. "The DS is going to give you some railroad to operate on."

The conductor and engineer checked the flimsies Eddie thrust to them. They reckoned their next moves, how far they could go on the orders before taking siding again for superior trains. The crews went out, their lanterns making bright sparks in the vast dark. Fifth 615 moved through the passing track and rolled away across the starlit void, her tail lights sullen red splotches.

Eddie slumped. Those guys'd got themselves into such a lather it was like mingling with a cyclone.

He speculated somberly on their vivid conversation. They'd talked too much about the wrong things. He remembered the times when crews. hung up at a train-order station by derailment or washout or minor check in the flow of traffic, gathered in the office to badger the op, to dispute, and tell tall tales of their exploits across the network of steel. They would moan and bewail and else. They'd moan and bewail and blame the dispatcher, criticize all brass hats. Without hesitation. they'd declare how to run a railroad. But it was merely letting off excessive exuberance—their pop valve.

But there'd been hardly a complaint in this evening's session. No lamentations, no boasting. Nobody had even ventured to outline a brilliant new policy for the management.

Out here on the desert the monotony was the worst. Crews lived with the job day and night. They came off the run, maybe out sixteen hours. and collapsed into bed. Next day, they awoke to immediate duty. The crew dispatcher dragged them out of a restless cave of fitful sleep and fitted them into the rolling machine again. There were no diversions. nothing to give them a lift. Nobody even said they were doing all right. Barabe'd better not try the iron hand on this outfit at the present moment. That would put on about enough heat to cause it to rip apart at the seams.

Eddie shook his head quizzically. His thoughts were becoming all snarled up with human behavior. Broody, like an old hen. Maybe Walley had been right when he'd said Eddie'd been too long on the desert.

A faintly familiar urge stirred his thoughts and set them drifting back through the boomer years. In those times, if a job didn't quite fit, or it became the least irksome, you pulled the pin immediately and drifted on to the Pennsy or the "Q" or the Rio Grande. It was a big, free country with a lot of things to see.

The thunder of the big engines echoed across the bright years. Pictures flickered against the satin dark; he caught the jagged skyline that cities show, laced with locomotive smoke.

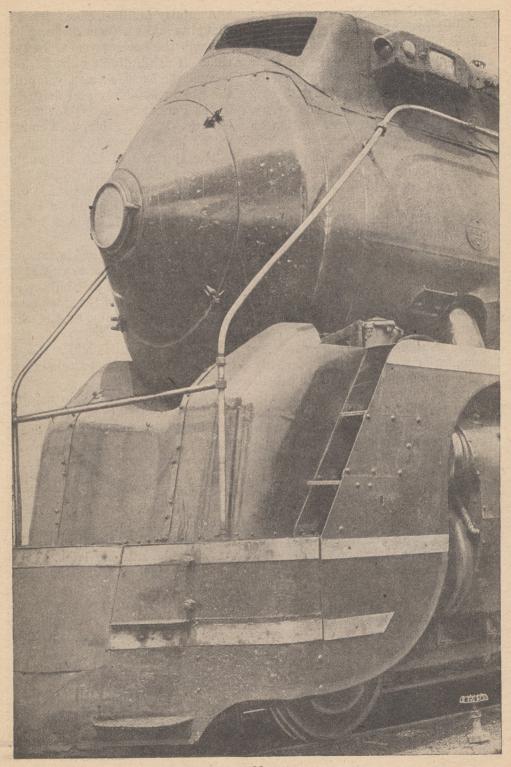
For a single glittering moment he saw the breathless swoop of the Rockies against the brittle blue and he heard the snarl of the stack tossed along the canyon walls. Smells which the winds had gathered from a thousand miles of prairie slid across his face and urged him to take to the careless road again.

Why not? He could do a job in Wyoming or Delaware. He was as free as the prairie wind he'd just tasted. Wayward fancies reached out over the storming web of steel.

The dispatcher's bell rasped in a quick convulsion. Eddie blinked the wistful pictures from his eyes. An uneasy feeling set in.

He glanced at his watch. He'd worked only half his trick. Yet it seemed as if he'd gone through a month's trials in one evening. If these continued to multiply there'd be trouble between now and midnight. Events happened fast, when you were handling heavy traffic.

The heat which had collected in the office all day was like a blanket. But he felt a slight chill breath on the back of his neck. The sullen red markers of Fifth 615 melted stealthily into the velvet curtain.





Light of the Lantern



High Speed Train-Order Stand

By LEROY PALMER

THE Los Angeles Division of the Union Pacific can now boast what appears to to be the cleverest device yet made for the mechanical delivery of train-orders to moving trains. It is called the Ashcraft High Speed Train-Order Delivery Stand.

Duane Ashcraft, a veteran of twenty-three years in the telegraph service of the UP and former ORT General Chairman when this part of the UP was "The Salt Lake Line," has always been an inventive genius. Back in 1931, when I worked with him at Kelso, Calif., he was using a homemade device,

similar to those commonly employed today, to open his garage doors as he approached in his car. At Crucero, Calif., he constructed a wooden rack for our stock of train-order hoop strings, that kept them from tangling. They were stretched straight in the rack, separated and ready for instant use. It was a decided improvement on the customary arrangement of strings hung in a bunch from which you must laboriously disentangle one every time you need it.

"Ash" handed up thousands of trainorders to flying trains under all conditions. He knew the hazards of the work and long ago realized the need for a good mechanical delivery arrangement. His inventive mind finally centered on the idea of a real trainorder delivery stand. The object was to plan one that would protect the operator from the strain, not to mention danger, of standing close to fast moving trains, one that would really work and that would eliminate climbing. He started to play with the possibilities of a metal semi-automatic post.

Ashcraft is first trick telegrapher at Arlington. Calif., where the branch forks to Camp Anza, the big military post. The railroad company allowed him to install the post there for testing and demonstration purposes for some time before they adopted it. His original mechanism didn't satisfy him and he made several improvements, until he perfected the one now in use. George C. Fish, our superintendent, is an ex-safety agent, and the UP officials know a good thing when they see it. The stand is now being installed at all main-line train-order offices on this district of the Los Angeles Division. The district has not yet been converted to CTC and is still operated with time-table and train-orders.

The Southern Pacific and some other lines now have hoop delivery posts but it is necessary to climb a ladder to affix the hoops in the post holders. Ashcraft's arrangement involves a parallel steel pipe fastened with a pivot bolt to a second one, which is set in cement in the ground. The upper pipe or mast is counterbalanced with lead filling at the bottom end of the mast. A coil spring lowers it to enable the operator to place his hoops in the holders. It works so simply and easily that my old friend, Johnny Hope, third trick man at Ontario, calls it "Ashcraft's Ladies' Aid" in honor of our many girl operators.

For our string hoops, which have three foot handles, the post is set eleven feet, six inches from the center of the track, with the bracket to the left and pivot bolt at right angles to, or square with the track, so that when the mast is folded over or let down for loading, it will be parallel to the rails with the latch guide clamp two inches above the rail top.

A mimeographed sheet of instructions accompanies every stand sent out. The operator, with his hoops ready for loading, places

his forearm over the crank handle, grasps the release handle and pulls up the latch, at the same time exerting a slight pressure on the crank. Counterbalanced with the weight at the lower end, it descends easily and gently. The operator places his hoops, raises the mast to a vertical position where the automatic latch catches it and holds it in place. It is all done in a few seconds. No machine could operate more easily or efficiently. An occasional drop of oil on the latch and the pivot bolt keeps everything working perfectly. At night an electric light automatically snaps on as the operator leaves his office with the hoops. This light is set on a goose-neck above the post and illuminates the scene for approaching trains. The post doesn't move or jump back as an op might, and there is no excuse for any train or engine man ever missing his orders.

LEFT: Duane Ashcraft demonstrates a vertical lift with the "super hooperupper" mast. Below: Four high-speed delivery forks in position for pick-up

Photo from Leroy Palmer, Crucero, Calif.

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The stand is equipped with six sockets. which can be raised or lowered as desired. The instruction sheet tells you which socket to use for the different locomotives. For our big 3800 and 3900 locomotives and the Diesel units hauling the streamliners, we use the top holder. The bottom socket puts the mast at the right height for a man standing on the caboose steps. The in-between sockets are used for engines of medium height. Most of our freights are run extra, and the operator knows the type of engine to expect.

For double-headers, the hoops are set in sockets with one holder in between each hoop and enginemen are instructed that where there are engines of different sizes, such as a large road engine followed by a little helper, the big engine is to take the top hoop and the small one the hoop below, regardless of who is "on the point," or leading.

One of the factors in favor of this mechanism is the fact that there is no necessity for trains to slow down, as formerly, to pick up orders. The post is well named the High Speed Train-Order Delivery Stand and is a fitting companion to the Hi-Speed Delivery Fork, which is the type of string hoop we use here. The faster the train is moving when strings are caught, the less friction and the better the operation.

On the UP the flagman gets a copy of all orders, so for a passenger train with a big engine and a small helper, the operator would place a hoop in number 1 or 2 socket for the road engine, in number 3 or 4 from the top for the helping engine, in the bottom socket for the flagman on the rear and in the second from the bottom for the conductor, usually in the center of the train.

There is just one caution in the instructions; that is, the spring clip which holds the string must always be placed on the hoop fork so that it faces away from the approaching train. If turned the other way the string may break and the delivery fail. Operators are accustomed to such an arrangement when handing up orders by hand, so it's easy to remember.

To prevent hoops from turning in the sockets, a number 4 round-head screw is set in the fork handle three inches from the end. in line with the spring clip. This screw engages a slot in the socket and prevents any possible twisting of the hoops in the holders.

Here on the Los Angeles Division, we regard the stand as fool-proof and nearly perfect in operation. There is no doubt that other railroads will want to use it when they learn how efficiently it works. We think we have the super hooper-upper.

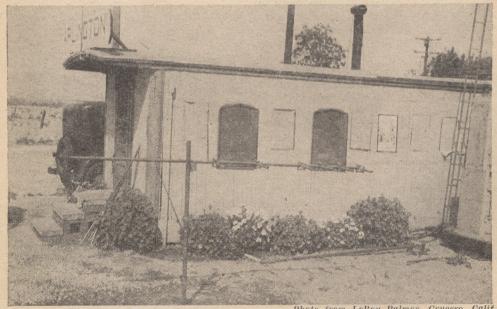


Photo from LeRoy Palmer, Crucero, Calif.

TEST STAND lowered for loading outside Arlington, Calif., station where Inventor Ashcraft is first trick telegrapher



Information Booth

Each month the Lantern Department prints answers to rail questions of general interest, submitted by our readers. We do not send replies by mail.

AM CURIOUS about the telegraph and powerline-like structures on sides and top of the new NC&StL lift bridge over the Tennessee River. Please explain, and give the history of this bridge.

The Dixie Line's bridge at Johnsonville, Tenn., was opened for traffic December 17, 1943, the first train to use it being a southbound freight pulled by engine 621; Engr. J. C. Smith, Condr. J. C. Rodgers. It was part of a ten-mile track relocation on the Nashville Division main line, necessitated by TVA construction of the Kentucky Dam at Gilbertsville, Ky., and has five novel features:

(1) Navigation span of the vertical lift type—the only bridge of its kind on the NC& StL.

(2) The structures, which you observed, for carrying electric power to the bridge.

(3) Train operations safeguarded by interlocking the movement of the lift, for river traffic, with the centralized traffic control system.

The span is locked down to the piers. Joints between the rails on the lift and approach sections are locked. Operation of these locks is connected with the signal system in a manner which prevents their being unlocked when a train nears the bridge. After the span has been raised, the signals cannot again be cleared for the passage of trains until the span is lowered and all locks closed. The upward and downward movement of the span is protected against over travel by automatic electric devices.

(4) The nature of the foundation material led to construction of an unusual type of base for the main river piers.

These foundations are dumb-bell shape, open-well type caissons. The caissons were built of sheet steel piling, driven through a twenty-foot-thick stratum of sand and gravel overlying the chert bed. The sand and gravel was excavated from within the caisson wells by pneumatic jacks, without unwatering,

while the caissons were filled with concrete, deposited under water.

(5) Though the lift span and counterweight towers of the bridge are new, most of the structure came second-hand from two old bridges.

The two deck plate girder spans and five of the through truss spans were taken from an Illinois Central bridge over the same river. These spans were floated off the old piers and moved seventy-seven miles upriver to the new bridge without dismantling. Part of the lifting machinery for the new bridge was taken from a similar structure over the Kentucky Dam's navigation lock.

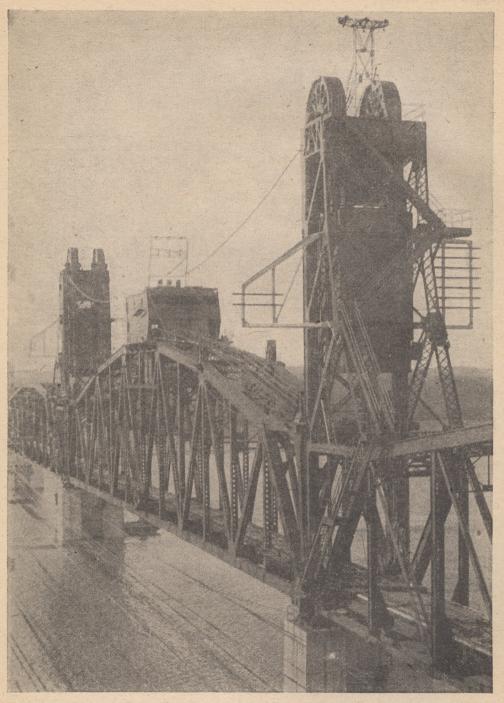
Replacing the old Johnsonville bridge, built in 1894, the new single-track bridge, 1736 feet long, consists of six through truss spans and two deck plate girder spans. The navigation span is 360 feet long and provides a clear channel width of 350 feet. In its raised position it provides a vertical under-clearance for the passage of river traffic, of fifty-nine feet above normal water and forty feet over maximum flood level.

The lift span weighs 2,570,000 pounds and is raised vertically, for the passage of river traffic, a distance of thirty-five feet. Its weight is counterbalanced. Steel boxes, filled with concrete, are suspended from it by forty-eight wire ropes. The weight of these boxes equals the weight of the span.

Lift towers are one hundred feet high. The suspender ropes, between the span and the counterweights, pass over cast steel sheaves placed on top of these towers. The sheaves are fifteen feet in diameter and weigh thirty thousand pounds each. Power for raising and lowering the span is provided by two 60horsepower electric motors, located in a machinery house on top of the span. A gas engine also is installed in the machinery house, to provide power for raising and lowering the lift in case electric power fails. The span is operated from a control house directly beneath the machinery house.

WHAT was the record iron-ore haul by rail during the recent war?

Your question is a little vague. We have no figures on weight of the heaviest single ore tonnage train, if that is what you mean. or the total tonnage carried by all North



DIXIE LINE'S new bridge at Johnsonville, Tenn., shows open-well type caissons, base for main river piers. Lift towers rear one hundred feet high in back- and fore-ground

American trains during war. However, 116½ million tons of iron ore were hauled by the Great Northern, the continent's major carrier of that commodity, during the four and a half years of war. This set an all-time high for ore tonnage handled by one road in a like period.

3

HOW many units comprise the Reading's harbor fleet?

The "World's Largest Anthracite Carrier" owns fifty-two listed harbor craft, besides several non-revenue floating maintenance equipment units. The Reading navy consists of one Diesel and ten steam harbor tugs, nineteen steel car floats, nine covered house lighters, one floating grain elevator, five steel grain barges, and seven steel dock lighters. Three of the tug boats, the Wyomissing, the Bern, and the Perseverance, the new Dieselpowered craft, operate around New York harbor, though the name Philadelphia on their stern indicates their home port.

4

DURING a streetcar tieup in Washington, D. C., last summer the motorman said the delay was due to the fact that a car up ahead had "pulled plow." What did he mean?

In a conduit system, like the Capital Transit line, a plow is the device that picks up the electric current needed to run a streetcar. Standing about three feet high and weighing approximately fifty pounds, the plow is made up of 152 separate parts. It hangs from a rack on one of the wheel trucks and extends down through the slot in the middle of the tracks. Two shoes on the bottom of the plow are pressed by springs against underground conductor rails that carry the current.

Running as it does in the narrow slot, the plow can give the street railway operating and maintenance departments a variety of headaches. Sometimes a stone or other obstruction in the slot pulls the plow loose from the rack. More often than not, the forward motion of the car gives the plow a twist, making it practically immovable in the slot. In such cases nothing can be done until an emergency wagon arrives to cut the plow out with acetylene torches or chisels.

The first few weeks of summer weather cause tight slots. That is to say, expansion of street surfaces and track steel closes the slot up, causing innumerable pulled plows. Winter brings more trouble with skid chains from automobiles and trucks dropping links into the slot, and snow and ice packing down into the slot and the tube beneath. Occasionally the shoes pull off, or the underground conductor rail breaks or short-circuits, adding to the misery.

To keep the Capital Transit's fleet of around seven hundred passenger cars in daily operation, besides providing extras for emergencies and work equipment, requires about 1500 plows. That number are made annually in the company's shops, in addition to repairs

to almost fifteen thousand.

5

TWO YEARS ago I read that the Minneapolis & St. Louis had placed an order for five 2-6-6-2 simple articulated locomotives, but I have never seen such engines in service or heard anything further about them. Do you know why?

Although ordered, these articulateds were never built, because the War Production Board refused to grant authority for their purchase to the "Peoria Gateway Line." However, the Government agency did sanction the substitute buying of Electro-Motive Diesel freight road engines.

6

WHAT is the length of the Pennsy's Rock-ville bridge, above Harrisburg?

The four-tracked, 48-arch Susquehanna River bridge is 3850 feet long, far surpassing all other stone arch railroad structures in the world.

7

EXPLAIN the difference between the Straight Plan and the Average Agreement Plan of handling demurrage accounts on the railroad.

Under the Straight Plan, each car is handled on an individual basis. Claims may be

made for extreme weather conditions, bunching of cars, and other delays not attributable

to consignee or consignor.

The Average Agreement Plan is usually accepted by shippers and receivers who handle a considerable number of cars each month. All cars released during any one month are combined in one account for all cars received inbound, and another for those loaded outbound. Inbound and outbound cars cannot be combined into one account, neither can debits or credits be transferred from one record to another.

One credit is allowed for each car released during the first twenty-four hours, following the first seven a.m. after cars have been placed on consignee's tracks or after notice has been given. Cars released during the second twenty-four hours are not debited nor credited. Those held longer are charged one debit for each day. At the end of the calendar month, debits and credits are totalled. Debits are offset by credits at the ratio of two credits for each debit, and the difference, if any, is charged for. In no case can more than eight credits be used in cancellation of more than four debits on any one car. On flat- and boxcars only two debits may be cancelled by using the same ratio. Refrigerator and tank cars may not be included in customers average agreement, since they are owned by private car lines.

8

COMPARE Duluth, Missabe & Iron Range's Class M-4 2-8-8-4s with the Espee's Class AC-9 locomotives.

	M-4	AC-9
Numbers	228-237	3800-3811
Cylinders	26x32	24x32
Drivers	63	631/2
Pressure	240	250
Grate Area	125	139
Weight, Engine	699,700	689,900
Tractive Force	140,000	124,300
Builder	Baldwin	Lima
Date-	1943	1939
	at at	

LIST specifications of the Oliver Iron Mining Company's 0-8-0 switcher.

Cylinders .		 	 	 	23x28
Drivers			 	 	50

Pressure	225
Weight of Engine	
Tractive Force	
Builder and Date	

9

EXPLAIN the trackage agreements by which the Illinois Central operates its trains between Jackson, Tenn., and Birmingham, Ala.

From Jackson, Tenn., to Corinth, Miss.—a distance of 56 miles—the IC operates over the Gulf Mobile & Ohio trackage, which was formerly part of the Mobile & Ohio. Between Corinth, Miss., and Haleyville, Ala., 78 miles, the Illinois Central operates over its own tracks. From Haleyville to Jasper, Ala., 41 miles, it uses the Northern Alabama Railway, a subsidiary of the Southern, and from Jasper to Birmingham, 36 miles, the line is owned by the Frisco.

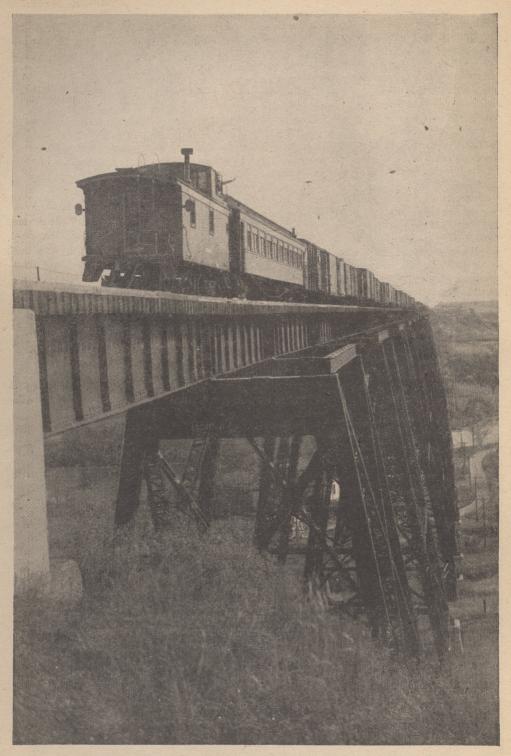
From the standpoint of mileage, this is the most extensive arrangement the Illinois Central has. For the right to use the foreign rails, IC pays an annual rental of two percent of that line's valuation plus half of its taxes, as well as a percentage proportion of the maintenance expense determined by the number of cars transported over that section.

10

FURNISH data on the Pere Marquette's new car ferry, Number 10.

Pere Marquette Number 10 slid down the ways at the Manitowoc Ship Building Company on October 30th, 1945. Mrs. L. H. Kent, wife of PM's superintendent of steamships, was the sponsor. Ninety percent completed when launched, the ferry was fitted out and on her way to Detroit a few weeks later, her crew accommodated in railroad bunk and dining cars placed aboard for the sixty-hour trip. The route to Detroit was up Lake Michigan, through the Straits of Mackinac, and down Lake Huron.

Specifications for Number 10 called for a ship to be built along the same general lines



NORTHERN PACIFIC'S "High Line" bridge at Valley City, N. D.



FREIGHTER'S MEET on the Sierra summit of Southern Pacific's Overland Route, where off-trail hauling is strictly a dog's business

as Number 12, which has proved ideal in Detroit-Windsor service, where an average of around a thousand cars daily are floated across the Detroit River between the PM in Michigan and its Canadian Division, and the Canadian Pacific. The new car ferry has propellers fore and aft, as turning the ship at each shore would be a waste of time in the twelve-minute run. A coal burner, she is powered by two Skinner Uniflow threecylinder engines, developing a maximum of 3,200 horsepower. Three railroad tracks on her open car deck carry twenty-seven freight cars of forty-foot length. Four-hundred feet long, she has a fifty-three-foot molded depth and a twenty-two foot beam. Contract for construction was awarded in December, 1944, at a cost of \$1,300,000. Number 10 was the first commercial ship launched at the yard since the City of Midland Number 41 was delivered to the Pere Marquette in 1940.

11

SUPPLY information on the tenders of the New York Central's Niagara Type 4-8-4s.

The tender of the 6000 Class is of a new type, designed with the object of providing about the same coal and water capacity as that of the large, conventional twelve-wheeled double-truck tenders fitted to the Class L3 and L4 Mohawks, but with a wheelbase six feet shorter, so that the 4-8-4s may be handled on standard, one-hundred-foot turntables. Basically, the construction of the tenders consists of a cast steel underframe, together with a four-wheeled leading truck and five independent pairs of wheels, whose journal boxes are in guides, cast integral with the main underframe. Forty-eight feet three inches long, these tenders carry forty-six tons of coal and eighteen thousand gallons of water, and have a loaded weight of four-hundred and twenty thousand pounds. A high-speed water scoop is provided, and the tank is fitted with a modified venting arrangement for the same purpose.

12

HOW did the Illinois Central move the new rails to its recently improved Cairo Bridge over the Ohio River?

IC replaced the old, ninety-pound rail on

this bridge with new, one hundred and twelve-pound iron. These rails were skidded for six miles. Hauled to the bridge, eight at a time, supported on skid ties by a steam locomotive, the skids were ordinary crossties, spaced twenty to fifty feet apart, and each was equipped on its bottom face with two skid plates, provided with lugs to act as flanges in guiding the ties along the track. Sixteen continuous rails were laid on the bridge.

The Cairo Bridge is a level truss structure between Ohio and Kentucky, consisting of nine main, through-truss river spans, and two deck-truss approaches. Its total length is 4,393 feet. The two chief difficulties on the single-track structure had been rail batter and tie-plate cutting. The former condition was remedied by substitution of the heavier and longer rail of continuous pressure buttwelded design, with the lengths separated by switch-point type expansion joints. The tie cutting and wide-gage problem was solved by employing Fabreeka pads.



HOSTLER'S HELPER swings New Haven water column into position



SQUIRTING water on the engine foreman was the fireman's usual sport, yet this time it took the entire crew to keep him from being murdered 78

Horseplay

By HAROLD L. JOHNSTON

boards and roundhouse warnings to put an end to the noble pastime of horseplay. During the recent war, railroads increased the number of posters and vigilance to try to keep their men whole and on the job, but the habit has never been broken. I've watched horseplay for the past forty-five years in all its glory; sometimes comic, often rather tragic. Yet you can't stop railroaders with a sense of humor.

Some people are just naturally gullible, which brings out the worst in a joker who can't resist. However, each man usually has a different reaction to the so-called jokes of his fellow employes. You can't even count on a man to give the same reaction twice in a row. He may be so goodnatured that you take it for granted; then one day you may pull a trick just after he's had a spat with his wife, and is in no mood for it. During a long career on the high iron, I've seen many a strong friendship end just this way.

I remember the first prank I pulled in connection with the railroad. I was only thirteen, and my brother, Lester, ten. My step-father was the Santa Fe agent at Edelstein, Ill., and we spent most of our free time in the station or rambling along the right-of-way. There was an accident on a stretch of track right in town, where several cars of oil had been turned over. The rails were greased for some distance, and the first hogger to come along cussed and sanded the track with little effect. It took quite some time to get rolling.

This gave us an idea we couldn't get rid of. We had no grease but over at the grain elevators lay all the nice young green oat sprouts any kid could ask for. We gathered up armload after armload and piled them on the main track just west of the depot, careful not to let our stepfather, Wallace Clough, see what we were up to. After doing a really good job, we sat on the high platform and waited for the next train to come rolling in. It was not long before the fun started.

In 1896 the Santa Fe section foremen and laborers were generally Irish. One man stood out above all the rest for a quick and violent temper, one we called "Happy Jack". The pride of this foreman's life was a clay pipe he had brought from the "ould sod," which was now well blackened up from years of use and only about two inches remained of the original stem. Coming home in the dust on the hand car each night, you would see Happy Jack standing up proudly with his pipe clenched in his teeth, riding in glory as his sweating men bobbed up and down at the ends of the handle bars. He wouldn't have traded jobs with the president of the Santa Fe.

The day my brother and I put oat sprouts on the track Happy Jack had had a run in with Bridget, his red-headed wife. All day long he had been a hard man to work for. Then along he came on his hand car, instead of the train we were looking for. The tracks were slightly upgrade and the men were laying on for all they were worth; for some reason or other, Happy Jack had unbent enough to lend a hand. Perhaps he had thought up a quick answer to give Bridget and so was in a hurry to get home to tell her.

When the hand car hit the bunch of

juicy oats, its wheels suddenly lost traction. The handle bar went suddenly down, and in coming up knocked Happy Jack's priceless pipe spinning in the air. It cracked onto some stones on the right-of-way and was smithereened, while the wheels spun faster and faster until it looked as if there were ten handle bars instead of one on that car.

JUST then Happy Jack saw us kids and we saw him at the same time. My brother left immediately for parts unknown, but as I started to slide from the high platform a nail caught in the seat of my pants and held me there. On came Happy Jack.

Something had to be done. A kid can shuck his pants in a hurry and I did just that. There was a hole under the platform just big enough for me to crawl into and too small for Happy Jack. I shivered there in the darkness, while he told me all the things he would do if I would come out.

At last he left. But it was nine p.m. before I sneaked into the house carrying my ripped pants, one hour later than the time I was supposed to be safe under the home roof, and my mother was strict about things like that. I had other things bothering me after she got done with the razor strap. This was the first bit of horseplay I was guilty of, but certainly not the last. I had a big lesson to learn before I quit the noble practice.

Just a few years after the Santa Fe built through Edelstein, some of the boys read stories about the night riders in the deep South and thought it would be a great idea to form a clan of their own. They rode hell bent for election all over that part of the country, out for a lark and not harming any one. About this time a relief agent came to Edelstein. His name was Grazia; since he had come from the West, he wore a couple of six-shooters.

Every village has its gullible citizen and my little home town had two such characters. One of these was visited one night by a white-robed figure who ordered him to report to Agent Grazia the next afternoon for a jury trial in connection with some terrible crime he was supposed to have committed. The jury was to be composed of the night riders.

Poor Bill dropped in to see Grazia the next day and told him his troubles. Grazia shook his head sadly, then informed Bill that the jury would probably hang him. As his victim's face mirrored woe, the agent slapped him on the back and told him that he'd stand by him through thick and thin. He himself had come from a state where a man got a fair trial and he would see that Bill got one.

"Out West," Grazia told him, "we carry the law right with us. It's the law of the six-shooter, and by Gawd I'm going to loan you my two six-guns so you will have the law on your side. Come around about half-hour before the trial and I'll let you have them."

Bill was all gratitude. After he had gone away happy, Grazia spent part of the afternoon pulling bullets from the revolvers and stuffing in paper wads. Bill showed up about dark and Grazia strapped the two hog legs around his waist, hiding them from sight of others under Bill's coat. Then he gave Bill instructions to jump up and start shooting, just as soon as the jury foreman began asking questions.

The jury arrived on time. Among them were the up-and-coming business men of Edelstein, storekeepers, elevator men, blacksmiths and pool-room owners, all ready for a lot of fun. Curt Brayton, the foreman, rose to ask the first question. Bill looked at Curt and a sneer covered his face. Last night he had cringed when the riders had brought him word about the trial, but now defiance glared from his pale blue eyes.

Suddenly he jumped to his feet, and jerking the six-shooters from their holsters, he started fogging up the foreman and the jury. Blam! Blam! crashed the old .45 black-powder loaded shells. The jury changed its mind about a trial. They cleared out of that waiting room like cattle on stampede. Sam Epley couldn't find the door in the fog of powder smoke so he went through a window, taking sash and

all down the right-of-way. The rest crawled under waiting-room benches, through the ticket window and out through the bay.

Finally, only Grazia and the highly excited Bill remained. The agent calmly reached for the smoking guns and told Bill he had just completed a brave job of proving his innocence. But a bewildered expression was still on Bill's face as he stumbled out into the night.

Operator J. D. Root was the only one taken into Grazia's confidence about the blanks in those guns. Root enjoyed seeing the puzzled citizens sneak into the waiting room from time to time and stall around while they searched walls and floor for bullet holes which were strangely missing. Bill, on the other hand, strutted his stuff around town. He informed one and all that single-handed he had routed the night riders.

SOME TIME later, while I was working as night operator at Ormonde, I played another fool trick. Along about seven a.m. when my shift ended, we had a regular freight eastbound, whose number I can't recall. One morning she pulled in with leaking flues and carrying signals. The engineer got her into the siding and gave up the train as the hog was nearly dead.

The dispatcher let the following section around them and exchanged markers, making the drag on the siding the last section of that train. The engine crew from the crippled locomotive went to Chillicothe. Now there is one thing I've always been crazy about—engines. I climbed into the cab and took the seat on the engineer's side. No one saw me, so I felt master of the situation. If I wanted to, I could ring the bell; if there was steam enough left I might blow the whistle. Nobody could kick me off my seat except the train crew in the hack, fifty cars away.

I glanced at the gage and noted 20 pounds of steam; then my imagination grew stronger. I figured that I was the hogger and that the conductor had just waved me a highball. What was I waiting

for? I gave two little toots on the whistle and eased back on the throttle. Vast clouds of water impregnated steam blew from the open cylinder cocks. Nothing happened but to my young impressionable mind I was already hightailing it out upon the high iron. I rang the bell a few times and closed the throttle, preparing to throw a slug of air under the train because I must surely be coming into the Galesburg yard limits, and a good hogger enters yard limits under control.

At that moment a westbound freight approached. As the engine came opposite to me, I reached for the whistle cord and blew a watery —oo signal, which in any rulebook means "Section following." At that time I didn't know very many whistle signals. But I discovered what my—oo meant, when the westbound hogger threw a slug of air under his train and ground to a screeching stop.

I left the dead engine from the side opposite the main line and headed for a distant farm house. I have never forgotten that whistle; every time I hear it now I think of my brief adventure in the cab of that engine at Ormonde. It is easy to understand why the westbound train stopped so suddenly. Her engineer had already met the first section carrying green and the dead train on the Ormonde siding was naturally the last section, until the dispatcher made up his mind to annul it. My whistle upset the DS's apple cart for the time being. Now, forty-six years later, I confess my part in the confusion and get it off my conscience.

After leaving the Santa Fe, I went to work on the Chicago & Alton, and then to the Northern Pacific, being assigned as telegrapher at La Moure, N. D. At this point some horseplay broke up a firm friendship. Bill, the baggageman, and myself had always got along. There was the Jim River to fish and swim in, and take boat rides on; and both of us enjoyed hunting through the woods. We had a very early train due each morning. It was my job to meet this train at three a.m., and I received extra pay. But after this had been going on for some time, I needed

catching up on my sleep with the result that one fine morning I was on the prod, spoiling for a fight or what have you.

About nine a.m. a regular train pulled out for Dickie. Outside a couple of pretty girls strolled along the platform, walking back and forth in front of the bay window where I was copying train orders for the Dickie local. A trapper was shipping pelts and musk. Bill got a nice mess of this musk on his fingers and slipping up behind me smeared it all over my face, while he winked at the grinning girls.

That was the end of our friendship, and the end of my train order. I jumped to my feet and the battle was on for the benefit of the passengers, trainmen and any others idling about. This horseplay could have resulted in serious injury to this writer, if Bill had aimed a pair of sealing irons at my head with better accuracy. Luckily, he slipped. It was also lucky that the agent rushed in just as I was about to conk Bill on the head with a three-legged stool. So horseplay fixed things between Bill and myself, and we were sore enough to murder one another just because one of us didn't happen to be in a playful mood that particular morning.

I DRIFTED from office to office of the Rock Island, and at last landed at Natick where the three cities are located on the Mississippi River: Moline, Rock Island and Davenport. This was about the best setup an op could want, from seven a.m. to seven p.m. Every evening at five, six or seven sections of manifest freight would be called and leave for Blue Island at twenty-minute intervals.

We had a good yard office force at Natick from the yardmaster down. In 1903, Rule G didn't cut so much ice as it does now; and on the day I have in mind, things were rolling along in fine shape until a westbound freight brought in two cars of live poultry for feed and water. When the job was finished, the yard men brought a sixteen-quart bucket of eggs from the chicken cars. The yardmaster then remarked that if we had that pail of beer we could fix up a drink.

Just across the tracks stood a German saloon where we could get more roast beef, mashed potatoes, gravy, bread and butter, along with a schooner of beer, all for a nickel, than you could buy today for several dollars. Needless to say, we rails carried no lunch pails. When the shop's whistle blew for noon hour, it was a stampede for the German's to see who got a table and the first serving.

The sixteen quarts of beer, with its complement of fresh eggs, was soon gone. Thirty minutes later the whole yard office was demoralized, and the fun started. The crew dispatcher sent the new call boy out after a can of red signal oil, and the storekeeper sent him to somebody else. There were crews to call but no call boy. Then someone started to sing a mournful refrain, the theme of which was to "turn time backwards in its flight and to make him a boy again just for tonight." He was obliged by somebody throwing the time switch on the standard clock which bounced the hands back to noon. The clock in Natick yard office would set back to noon whenever the switch was closed. Present-day standard clocks will only set back or ahead if the switch is closed during a time signal.

I was so in mood with the others that I was beyond caring about the various dispatchers calling me from the feeder divisions, or from my own dispatcher's office. I, also, was turning time back in its flight. The new caller came in then with a can of oil and carefully explained to the crew dispatcher that though he couldn't get any red signal oil, he had brought back some green.

In the middle of this talk, in barged the chief dispatcher and an operator from 31st Street to find out what was delaying the Rock Island System. Here it was 5:30 p. m., a standard clock was ticking off at 12:15 p. m., and everything was tied up in the yards because of a few eggs and sixteen quarts of suds mixed with some horseplay.

There was an investigation next day, and we all received a fine talking to. But I have said before, the bunch at Natick was one of the best and we all stayed on

the job from that time on.

My next move was to the Southern Pacific out in sunny California. I was working at Redlands Junction when the following incident happened. Although I cannot mention names, it came about at Colton, just a few miles west of the Junction, where switch is employed. The engine foreman and tallowpot on the early morning goat were close chums and most of the time playing jokes on each other. Time after time, when the fireman was using the squirt hose, he had playfully given the engine foreman a shower as that worthy walked to the side of the engine with his switching lists. One morning the foreman showed up for work with a slight hangover from the night before. He'd been on a payday celebration when his wife had dropped in on him, grabbed what was left of the paycheck and had given him merry hell for the rest of the night.

The foreman was still burnt up over it as he walked to the engine. The tallow gave him the usual playful squirt with the hose, but this time it took the whole engine crew to keep the foreman from committing murder on the spot. It also brought out an investigation and discipline was handed out over a little horseplay that spoiled a great friendship.

A T OGILBY—a station just west of Yuma, Ariz.—a long freight pulled into the siding to meet an eastbound hotshot. The dispatcher had miscalculated somewhat, so there was a little delay. The fireman and hogger leaned back on their seats and dozed off.

The head shack, a new man on the road, figured this was an opening for some fun. Taking a red fusee he climbed out in front of the engine, came back on the running board on the hogger's side, cracked the fusee and yelled. The hogger came to life instantaneously and big-holed the train. Then the shack came forth with a merry ha! ha! He had just about doubled up with his merriment, when the hogger straightened him with a right uppercut.

There was a catch to his practical joke.

At that time there was a device on all air levers that would register if a train or engine had been put into an emergency application of air. A full explanation of each case was necessary. This time the investigation showed that the hogger and fireboy had been asleep. The whole head end of that train was fired over the shack's horseplay.

I was sent to Thermal next. Out there in the desert, mesquite and other brush grew quite close to the telegraph office. One afternoon Number 9 pulled in, and while taking water, loading express and other station work, a passenger strolled up to me.

"I hear there are a lot of rattlesnakes around this part of the desert," said he.

I gave him the once over. He sure was from the East; you could tell by the color of his skin.

"Sure," I replied. "Maybe I can show you one."

We strolled over to a big mesquite and there sure enough was a small sidewinder, though I was as surprised as the tenderfoot. I got a stick, conked the snake with it and then picking him up by the tail held him for the passenger to admire. I still had the snake as we strolled back to the track.

"Let's coil this snake up and give the colored boy a scare," I suggested, when one of the porters approached us. The passenger thought that would be a good idea, so I took my snake and began to coil him. Just as I had that ugly head in the right position for striking, he struck!

His fangs merely touched the back of my hand, and he was too near dead to break the skin. Yet it was the smart telegraph op, instead of the porter, that got the scare. As for the sidewinder, he was in snake heaven a few moments later while I was looking for something to put on my hand and for a drink to steady my nerves and stomach.

Later I moved on to Whitewater, which was real desolation. It was in the pass, where the wind blew in a gale from the west, day and night. The telegraph office

had a double roof, as well as a wind-break built on the west side of the office. One thing that made it liveable was the fact that we had a big ice box inside that windbreak, and it was filled with ice daily. The SP didn't worry much about what we kept cool there, so generally it was well-stocked with desert protection.

The section foreman was a green man a short time over from County Cork, Ireland. He, too, possessed a big ice box and wind-break so we became very close pals, especially around our individual ice boxes. Denny—for that was his name—had a section crew of Mexicans, more Indian than Mexican, a hard bunch to get along with. There was a revolution going on with the fighting centering about Mexicali, Mexico, and we got our share of bullets at Calexico, Calif., just across the line

The Mexicans on Denny's section had taken part in some of this warring. One day Denny came up to the telegraph office and told me that his men had five gallons of wine and a barrel of beer at their barracks and were getting drunk. What to do? Well, I was batching, so I asked Denny to eat with me. We cooked up a feed, ate a hearty meal washed down with fine liquid refreshment. Our next move was to oil up our six-shooters to get ready for further developments.

- About the time we came to this decision several shots were fired down at the gang headquarters to yells of "Viva revoltos."

(Live the revolution!)

"Ah!" said Danny, "so they are rebels, eh? Let's give them some rebel stuff."

DARKNESS CAME. We left the telegraph office and circled the Mexican camp so as to come upon them from the rear. We had called upon our ice box for inspiration, and by the time we reached the long barracks, where all the unmarried men bunked and cooked, we felt it stir within us. In we burst with shouts and both guns blazing. Spouting a mixture of Spanish and broken English, we told them that the federals had arrived.

There was a big crash. Mexicans went

through windows and doors without taking time to open them. One fat one got lodged in the window until another outside gave him a tug taking fatso and the window sash with him. Denny ran out one door and I the other. Somebody returned our fire from the outside.

In the shadow Denny and I bumped into each other. It was a case of mistaken identity. Denny connected with the point of my jaw and for a moment or two the Mexican war was over. When I came to my senses I saw a dim shadow peering around the corner of the barracks. I threw a quick shot at it. With a yell Denny came out into the open.

"Phwat ye tryin' to do?" he yelled in

English.

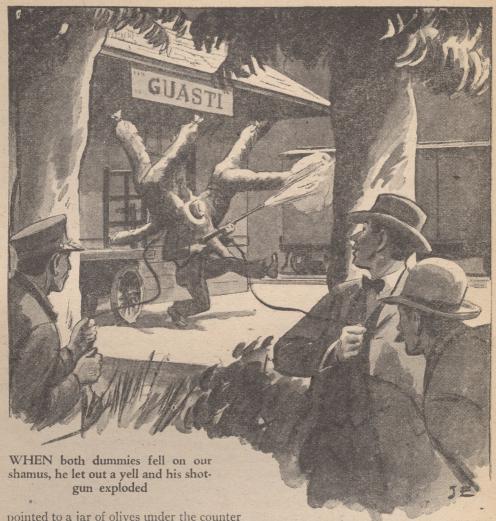
Shots were coming from the brush back of the barracks, when Denny and I took to cover. We stayed out in the brush until daylight, although during the night, we fired at gun flashes which came until the Mexicans ran out of ammunition. At dawn, there was not a Mexican in sight; Denny and I were the only men left in Whitewater. It took the foreman two weeks to assemble a new section gang, for the grapevine had worked fast. Word had gone around that the major domo at Whitewater was muy malo, and that the telegraph operator was worse.

At Saugus, Calif., an eating place was part of the regular station, and in it worked a very slim little hasher, whom we called "Beanie". Beanie was known for wearing her skirts tightly-fitted. Saugus generally had two or three helper engine crews waiting to give pushes, or just off help jobs waiting to head back to San Fernando. One hogger, "Chippy" Tay-

lor, was fond of playing jokes.

I was at the counter in the beanery getting my lunch one day, when Taylor walked in. He held a strip of canvas in his hand and the cloth was split at the top. The beanery was crowded with tourists from the highway who often ate there, as well as passengers and railroad men. Beanie came over to Taylor and the runner gave his order.

When she had served him, Chippy



pointed to a jar of olives under the counter on the other side of the lunch counter and asked for some. Beanie bent over to get the olives, while the engineer with the gleam of the devil in his eyes, ripped that piece of canvas from end to end. Immediately, Beanie straightened up suddenly, grabbed her rear with both hands just as Chippy roared with loud laughter.

Beanie went into action. The hogger received his order of olives flush in the face and the jar along with it. To that Beanie added Chippy's order of beef stew, and anything within reach. When the engineer left, he ran under a shower of cups, plates and silverware while the customers howled and Beanie retired to the ladies' room to see what was what.

THERE WAS a railroad bull on duty at Saugus when I worked there; he dragged all the hoboes off the southbound freights or passengers, making them pay fare, or go see the judge at Newhall, four miles south of town. This man was a deputy sheriff, railroad policeman and constable. I have seen him wear all his three badges at once, while he strutted his authority.

One night when I had come off shift and was killing time in the office along with the warehouseman, Ernest Rhode, in strode this cinder dick with twenty-five unfortunates whom he had hauled off a train from Bakersfield. It was raining and blowing outside, dark as the so-called black cat. The big-shot cop looked Rhode and myself over.

"I want you two men to help me take these prisoners to Newhall," he said.

"Is that so?" I sneered. "Who the hell you think you are?"

The bull stuck out his under lip. "If I say you help me take these men, I have the authority and don't give me any of your back talk. I'm swearing you and Rhode in as my deputies now. Hold up your hands."

I winked at Rhode. He was a smart lad just out of the School of Mines, who was working on the railroad to help pay back the loan his dad had given him to finish his education. We held up our hands and were sworn in. We were given a couple of guns and belts, and so started for Newhall.

Halfway down the track was a curve, the point Rhode and I had picked for our big joke on the bull. The sleuth was walking ahead while Rhode and I closed up the rear, and it was so dark we could lose our prisoners without being the wiser. We reached the curve. I pulled out the gun and yelled "Halt!" Immediately I started shooting and Rhode did the same.

We yelled to the bull for assistance, but there was no response. At the first shot that cinder dick had taken to the tall timber. Rhode and I took the men to Newhall, and after sitting around for an hour or two in the rain, we let the whole bunch go and beat it for home.

Along certain sections of the Southern Pacific, crews are on duty round the clock to fight fire which might damage the snowsheds sheltering the mountainsides near Truckee, Calif. The fire fighter crews received fire warnings and instructions by morse or telephone, and telegraph operators were on duty along with the crew. But it was a lonesome job at best, and something had to be done from time to time to relieve the monotony.

One night the boys suggested a little party which soon got under way. This was before Volstead had had his experiment vetoed, so there happened to be a goodly supply of Nevada mountain dew slipped into camp. The operator on duty that night was having a hard time to keep above board and in shape to answer the wire and phone. Generally he was the life of any party so the boys didn't like to see him suffer for lack of refreshment.

The engineer on the fire-fighting engine mixed up a well spiked slug of fruit juices and gave it to the operator, telling him that it was nothing but juice. He vowed it was merely flavored with moonshine to give it the proper taste and to make it worth drinking. But it had the usual results. Inside of an hour the operator was in a bad way; to top it off, the dispatcher's phone started ringing.

Now the crew knew if they let our operator answer that phone it would be a dead giveaway. Before they let him answer the phone, they aimed to throw a few slugs of strong coffee into him. This snow shed country is rugged, and a deep canyon separated the telegraph office from the opposite side of the mountain. A hundred feet from the tracks and on the opposite side of the canyon stood a giant pine tree showing tall and majestic in the bright moonlight.

The engineer's wife turned to the operator.

"The dispatcher's phone is ringing, Jack. Maybe you better drink this cup of coffee before you answer him."

Jack looked at her with a bleary eye and said: "Oh, I'm okay, Mrs. Jones. I'm jush fine."

With that he extended his left arm and nonchalantly leaned against that pine tree one hundred feet away. It took the entire crew to bring him up from the bottom of the canyon. By the time they got him patched up, he was sober enough to answer the phone, get instructions and start the fighters on their way.

ONE of the queerest tales of horseplay on the rails is the story of P. D. Barry and his elephant. Barry is our superintendent of terminals at Stockton, Calif., now, but he was much younger then and was yardmaster at Milwaukee for the Milwaukee Road. It happened that an elephant was shipped to a zoo in that city, and just before the arrival of the boxcar in which the big brute was confined, some switchman ran through a puzzle switch. Barry was unable to make a delivery to the zoo because of the wrecked puzzle.

The weather was cold. Barry had the idea that elephants should be kept warm, so he switched the boxcar alongside steam pipes in the roundhouse, and went back to the yard office to get thawed out himself. The men working in the roundhouse were ignorant of what the boxcar contained, thinking perhaps that it was loaded with perishables or some similar cargo. One nut-splitter, who had imbibed just a little bit too much of the creature this particular night, happened alongside the car when his majesty inside thawed out and resented the confinement of his overheated car.

Suddenly the sides of the car moved outward, and a long trunk with a board from the demolished car swung out in vicious circles. The giant began trampling out into the cooler atmosphere. The nut-splitter took one look and left, yelling that the devil himself was on his tail.

On the Western Pacific between San Jose and Niles Junction lie many fertile acres which were farmed mainly by Japanese as truck gardens before the recent war. Near Milpitas was a fine strawberry patch. The branch local crew had spent days figuring out a way to get some.

One night the local pulled up alongside the Jap's garden, because there was a car or two to pick up. The conductor and rear brakeman left the job for the head-end crew and stole out into the darkness to get strawberries. They found crates and baskets in a pile, and succeeded in filling them with berries. But as they started for the barbed wire fence and were angling through nicely, several shots rang out.

"Ye gods! That Jap is shooting at us!" yelled the conductor, making a sudden lurch to get through the wires. The rear shack had all he could manage, trying to save his own hide. Bang! Bang! came two more shots.

"I'm caught in the wire," shouted the

skipper. "Help me get loose before that scivy gets here."

"I'm in the same fix," returned the shack.

Then came the sound of ripping overalls and both men were free. Strawberries forgotten, they gained the crummy and dashed inside, both shy the seats of their pants and yellow around the gills.

It took a lot of argument after the run was completed to keep them from beating up the head shack and fireman. In the roundhouse they learned that the shooting had been caused by torpedoes placed on the rail and run over by the engine. The joke was just good clean fun for the engine crew, but a total loss to the conductor and rear shack.

While on the subject of helping your-self from farms along the right-of-way, I know of one flagman who tried to get too many apricots, while his train was switching and he supposed to be flagging. The trees were so loaded with big juicy yellow apricots he couldn't resist the temptation to swipe a few. But not satisfied with filling his pockets, he tied the bottom of his overall legs and filled each leg up too.

When it was time for the hogger to call in the flagman, that worthy found that in moving around in the orchard he was fifteen carlengths ahead of the caboose instead of that distance behind. He made the track with difficulty because he had so many apricots crammed inside his pants legs that he could hardly bend a knee. The train was now moving rapidly, and he had to catch that crummy. As it came by, he made a grab, but that was all. He straightened out alongside the crummy with apricot jam, juice and pits oozing from every opening in his overalls.

The patches of melons in the orchards alongside the track and plump yellow apricots are just as inviting in harvest time, but one flagman I know is no longer interested.

I DECIDED to give up horseplay on railroads long before the various companies decided to tack up posters with the

same idea in mind. What brought about this change was something which happened on the Espee when I was agent at a small town west of Colton. As I stated earlier, there are gullible people in most towns, and there was such a man in this town. He left himself wide open on one particular subject: criminal investigation.

This guy had taken a course by mail and graduated as a full-fledged investigator. He owned finger-print equipment, a star badge, microscope and all that went with the science of sleuthing. I got him a job as baggageman and at the start he was doing fine. Then we began riding him to see what he could solve and there the trouble began. There were three operators working, one cashier and one warehouseman in the depot. Banding together, we decided to test his wits as a shamus.

Carefully, we stuffed two dummies with straw and planted them on top of the sign over the east end of the depot, where—by pulling a string—we could drop them on top of our shamus. This was improvised after we had let him find several letters written by the Mafia, or Black Hand, in which we explained that we had learned he was too clever. We threatened that he would be eliminated from the scene unless he laid off. The notes gave him until eight on a certain night to leave or take the consequences, daring him to meet the Black Hand beneath the sign at the east end of the station.

The night rolled around; so did eight p.m. We were all hidden alongside the depot behind a row of trees wir

strings all ready to topple the dummies down on the head of our Sherlock. Sure enough, he showed up right under the sign. The light was dim, still we could see him standing there; but no one could make out what he held in his hands.

A yank on the strings and down sailed the dummies, arms out-stretched, right upon our baggageman. He let out a yell and then came two sudden blasts from a shotgun. At last we knew what he was holding in his hands. Just then the straw in one of the dummies caught fire, and as it lighted up our hiding place we began to move, cautiously at first. Then the detective saw us. Wham! Wham! roared that shotgun, and I felt the stinging impact of bird shot on the seat of my pants.

All I wanted now was distance. I headed for an orange grove where I figured it would be easy to lose myself. The rest of the gang had the same idea for we all barged in that direction about the same time. But the first step I took inside that grove was my undoing. They had irrigated the section during the day, and when they irrigate orange groves in California, they do a job of it. I sank clear up to my hips in black oozy mud and there I stuck, the rest of the gang with me.

We kept quiet, fearful of drawing more gun fire. Until our shamus friend had departed for home there wasn't a movement to pull ourselves out of the mud. It was then, while I picked Number 7 bird shot out of various parts of my body, that I made up my mind I was done with horseplay. But I had to learn the hard way.

The Jonah

By H. E. WEBSTER



THE RECORD of Number 1313 earned her the name Jonah. She was a Brooks consolidated with 20 by 32 inch

cylinders and carried 210 pounds of steam. A big engine for 1907, the 1300s were aiming straight for Jim Hill's dream of one engine and a mile of cars, a dream that

was giving locomotive builders for the Great Northern a constant headache, as Hill nagged and nagged them for larger engines—and got them.

Just why one engine out of a delivery of twenty-five should prove to be a goat, no one has yet decided; but this pariah soon spent more time in the back shop



WHAT EVERY HOGGER WANTS.

..Joe Easley

"Soon as I get a little money saved I'm gonna buy me a coupla acres around here, get me a few chickens, catch up on my fishin', and take it easy" than on mainline steel. In a short time, she piled up a reputation for such a number of queer wrecks that few hoggers wanted to handle her. It was never a case of railroaders' pet superstition—three accidents in sequence. The hoggers who caught the Jonah expected something to happen to her and she rarely let them down.

Once she dove into a turntable pit and broke her frame, when a hostler's helper unaccountably turned the table after giving the hostler a signal to come ahead. I tipped over in her while pulling into Hillyard yard; evidently the outside rail was broken in the old, sharp turnout. Later, she went through an open derail switch at Colburn after a student brakeman forgot to line it up. Each time there was a good reason for the accident; but it seemed strange that all these things should happen to the same old girl.

I signed rather unwillingly one day, when the call boy routed me out for a trip with the Jonah, which topped her experience until then. I had a student fireman for that run called George, whose surname I've long forgotten since I wrote it on

the time slip only twice.

George was an odd specimen. He was a dumpy individual, with short arms and legs, a round face, and a grin as fixed as that on a ventriloquist's puppet. And his record was nearly as bad as that engine. He certainly wasn't cut out for a railroadman, though to this day I'm puzzled to find a spot he might fit.

Only that afternoon, I had heard "Skyrocket" Bill Locher telling the gang of his experience with George. Bill's engine was snorting up the hill east of Elk when

George yelled:

"Hi-i-i, Mr. Engineer! Stop 'er."
"What's the matter?" demanded Bill.

"Lost my poker," George told him.
Bill had to stop, of course. The Big G
was burning Fernie—Canadian coal—
then; and while it was good steaming coal,
it coked, forming a crust over the fire-bed
that had to be broken with a long, tin rake.
Because of the delay in stopping, Skyrocket had to head in at Camden for Number 3.

"Cover the headlight," Bill ordered the student fireman, when they were in the clear at Camden.

Old oil headlights had a shade that unrolled like a window curtain, with a ring which was clipped on a hook. When Bill walked around the pilot, he found George taking off his overall jumper to drape the headlight. The engineer hurried back to the cab and cleaned the badly clinkered fire, while the returning fireman made no move to assist him, though it was his fault that the fire had to be cleaned.

Bill was sweating like a butcher and his temper was raw. "Where do you live?"

"Greenacres, Mr. Locher," replied George. "An' say, I've been thinking it over. We couldn't go ahead now if we wanted to, could we?"

"Why not?" Bill asked, a little puzzled. "Ha! Ha! 'Cause I got 'er blindfolded." Bill wouldn't have enjoyed humor even

if it had been good.

"Kid," he advised in a strained voice, "you'd-better head back to Greenacres to clean stables again, just as soon as you return to Hillyard."

THE ENGINE was simmering on the Spokane roundhouse lead when I reported for that trip. She had just been turned out of the shop and her jacket gleamed with a coat of new enamel. In the cab, polished brass valves and fittings glimmered under the light of the newlyinstalled electric incandescents, which replaced the old kerosene cage lamps. But what temporarily made me forget I was running the Jonah was the electric arc headlight which speared a beam of dazzling white light for a thousand feet down the track. They were just installing electric headlights at the time and it was this changeover that soon afterward put an end to George's brief railroad career.

Conductor Jack Close climbed aboard when the head shack herded us to the depot, and handed me the orders. Jack was tall and slim in those days, and his humorous gray eyes captured your friendship with the first glance. Recently, Jack retired as Superintendent of the Spokane Division after many years at that post.

But to this day I've always been thankful that I had a cool, competent conductor on

that trip.

Nothing unexpected happened on the run to Troy. George did the best he could, but shoveling dirt around the farm was quite different from tossing tons of black diamonds through a 16-inch door on to a white-hot fire which covered a hundred square feet of grates. Though I stepped down to help him by leveling the fire at every opportunity, it was badly clinkered by the time we reached Sand Point and I had to clean it.

When the conductor came over to check the delay, I asked him if he wanted to run her. Close got onto my seatbox and I fired for him the rest of the way to Troy.

On the return trip, two trains were called for the same time—six p.m. The first train took their connection on the main line, but since we had to switch a drag out of the yard, she pulled out of town forty-five minutes ahead of us.

Naturally, because the first train was a symbol (fast freight), we did not expect them to delay us any. However, their engine developed a hotbox and we came upon their flag at Bonners Ferry. We were stopped several times more until they reached Sand Point. By then the box had evidently cooled down, for I scooted right along and I saw nothing of their tail lights when I stopped for water at Newport.

After leaving Newport, we ran through frequent fog banks and I slowed down as we entered Scotia Canyon. But having passed tunnel 11, then the station mile-board for Camden, I started to pick up speed when we rounded a curve and hit a half-mile tangent. There was just one short curve between there and the water station, and I figured that if the head train had stopped at Camden their flagman would surely be back around that curve. That's what I thought! When the Jonah was a few carlengths from the point of the curve a red glow smeared the darkness above the point of a cliff. I wiped the clock.

The brakeman must have seen the reflection, too. With the first roar of emergency air from the brake valve, he shot from the gangway, and vanished. Just then I saw a fusee tossed high in the air, above the cliff.

"Hit the grit," I yelled to George, as red markers on a caboose glared a futile warning. I dropped from the window just before the Jonah hit. There was a crash of splintering wood, the screech of rending steel before my lights went out.

SOMEONE WAS CALLING, monotonously, when I came to. I must have answered, for I heard the conductor shout: "Hi, fellows, Web's alive! How's it look, Web?"

For a moment the effort of shouting out seemed too great. "Can't tell, Jack," I called. "Head hurts and I can't move." Through crevices in the wreckage piled over me, I saw frequent glimmers of the crew's lanterns.

"My God! He must be speared like a frog," I heard one of them say. I wondered if he meant me, but I didn't ask. Liquid trickled down my face, soaked through my clothes in spots. There didn't seem to be any feeling in my legs. I wondered if they were paralyzed, but that blood which ran down my face worried me most.

Because I couldn't use either hand to wipe it off, I stuck out my tongue and wiped my lips. It was syrup. Syrup had leaked down through a small Oregon Railway & Navigation car of merchandise that had toppled over me. That car had jumped its trucks, telescoped the car ahead and came to rest on top. I could hear Jack and the crew talking and grunting. Gradually their voices became clearer and less distant.

"Stick it out, Web," I heard Conductor Close say in a hopeful tone. "We carried ties and shored up that car so it can't settle down on you. Honest to God, we can't see what's holding it up. But as soon as the hook get's here, we'll have you out in a jiffy."

An hour later I was free. Camden is only twenty miles from the terminal and in those days the wrecker was always alerted.

Number 1313 had crashed through the

caboose and seven cars; and several cars in my own short, but heavily loaded, train were smashed. Not far behind the engine a small OR&N car jumped its trucks, telescoped the car ahead and shoved a long bundle of concrete reinforcement irons through the end of the car. The wire wrapping broke, so that the ends of the rods broomed out and speared the ground all around where I lay unconscious. Under the weight of the car, they bent and formed a bridge over me that kept the light merchandise car from crushing me. As a result, all I got were a few scratches and a bumped head.

The new paint job on the Jonah, however, had scarcely a mark. Her engine trucks were ruined, but the wrecker removed them and that afternoon I hooked onto the train and took it to Hillyard with-

out the trucks.

The student brakeman was usually as talkative as a clam, but riding the Jonah while she crashed through eight cars had put an end to that temporarily. He bab-

bled like a glib politician.

"Lemme tell you something, Mr. Webster," he said, "you had a close call. But I wouldn't stay on an engine an' smash into a wreck again, for all the farms in Greenacres. When we get in, I'm going back to Dad's farm an' pick stringbeans. Yes, sir, I've had enough."

Since George did not fire for me again, I don't know what happened to change his mind. Whatever it was, George had a trip to the hospital soon afterward because

he reversed his decision.

A few days later George was called for

a night extra east. Everything was normal and the train was coursing a long timberlane west of Sand Point coaling station. For a mile from where the newlybuilt Spokane International crosses the Pend Oreille river on a high drawbridge, the GN parallels the International nearly to Sand Point. At the end of the timberlane bends a long, easy left curve.

Just before we reached the curve, George threw in a fire, then leaned out of the cab window to catch a breath of cool air. The conductor, who was riding the engine from Colburn—where they'd headed in to meet a train—the brakeman and the engineer were all suddenly startled by

George's wild yell.

"Whoa! Stop 'er!" he shrilled. With another strangled whoop he leaped through the gangway into the night, past the brakeman who made a futile grab at his jumper. The engineer stopped and the shack dropped off as the train slowed and hurried back to where George lay. The engineer backed up and they loaded him on the pilot and carefully eased out his broken leg.

The brakeman was taken to the hospital at Sand Point. Probably you have already guessed what happened to George; in any case, you will remember that he declared he'd not ride an engine into another wreck. When the fireman, after throwing in a fire, looked ahead, his eyes were partially blinded by the firebox glare. Then across the curve he looked into the white beam of an electric headlight. Seconds after he leaped from the gangway, a train roared safely by on the Spokane International.

Novice for a Night

By C. H. CLEVENGER

Santa Pe THE NIGHT that I alighted from train Number 18 at Lugo, Calif., in the San Bernardino Mountains, on my first third-trick train-order assignment, even the snow flurries, appearing suddenly out of the darkness, seemed to

presage trouble. I stood on the narrow cinder path watching the lights of the passenger, as she squirmed down the eastern side of Cajon Pass and vanished in the thin veil of falling snow. Perhaps it was only the darkness or the strangeness of the place. Yet this sense of foreboding

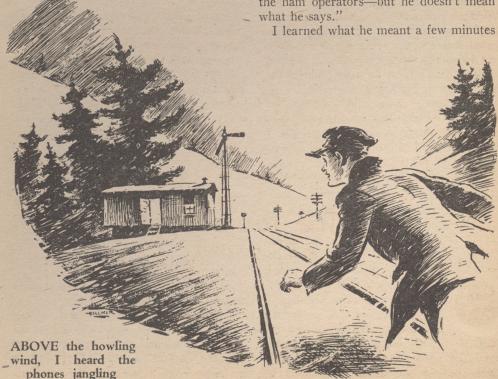
stamped the happenings of those first hours on the job clearly on my memory.

The chief dispatcher in San Bernardino had eyed me sternly when he handed me the pass. He went into his lecture above the grave responsibilities of a block signal operator, warning me I'd be alone on the graveyard trick. Before he was through, I'd begun to feel that the destiny of the entire Santa Fe rested on my shoulders. And while I had memorized most of the book of rules and could handle a key, I'd never talked over a DS's phone or copied a train order, so my lack of experience seemed to grow to gigantic proportions.

The boxcar office at Lugo was only a short distance from where I was standing, yet I stayed staring at the night for several moments longer. At last I noticed the second-trick op outside the shack, beckoning with a lantern near the dimly-lighted window. I started toward him, and as I approached, he turned inside without a greeting, closing the door behind him. I entered almost at his heels.

The building was typical of the block stations located on the First District of the Los Angeles Division after World War 1. It was an improvised bexcar, set up at right angles to the track. The only door opened in one side, and as I came in I could barely discern the operator, moving from a small telephone on one wall to another on the opposite side of the room. Into each instrument he shouted briefly, "Number 18 out ten fifteen."

A lamp on the telegraph table threw light on the OS sheet, and I was fascinated at the self-confident movements of the op. who made notations on the sheet while he slapped the headpiece of the dispatcher's phone to his ear. To say he was reticent would be putting it mildly. Even when things were quiet, he made no attempt to break the silence. By the time twelve o'clock rolled around, he had departed toward the three boxcars which served as living quarters. Yet I could recall but one bit of advice he had given me: "Don't let that old bear A.W.P. scare you on the dispatcher's phone. He likes to rave at the ham operators—but he doesn't mean



later when the selector began an ominous rattling, which ended in a harsh ringing of the bell. "Lugo, 19 copy 5." barked an authoritative voice, as I answered the phone. Nervously I copied the order,

and stammered as I repeated the words and numbers back to the dispatcher. I heard him growl something about the green kids, and his remarks did not put confidence into my shaking fingers as I placed the folded copies of the order and clearance in the hoops.

Outside, the valley was soon resounding with the labored vibrations of engines, and in a few moments the headlight of the drag was moving along the snow-covered mountains. Then

its beam caught the tiny station like the glare of a spotlight and bore relentlessly upon it. But in a matter of seconds the ordeal was over, and I found myself holding a flickering lantern while all the hoops had been snatched from my hand. Quick flashes of fire from the rear helper lighted up the mountainside, and in that uncertain light I saw empty train order hoops being tossed along the snow-covered right-of-way.

SUDDENLY I became conscious of the ringing of one of the block phones. Hurrying back to the office I was given an OS on another extra west by the op at Hesperia. With a sigh of satisfaction I settled back in the comfortable office chair. My self-confidence which had been at a very low ebb slowly began to rise.

A short time later when the noise of struggling engines of the second extra began to rattle the office windows, I closed my eyes nonchalantly, waiting for the operator at Keir to clear the block. As the rumbling grew nearer, however, I convinced myself that it wouldn't look too green if I merely called Keir to know how soon he expected to give me the block. With as much indifference as I could put into my voice, I asked him to OS the first extra as soon as he could, because the sec-

ond would soon be stopped by my redorder board.

"What do you mean—stop them?" he shouted. "Don't you know you can use restrictive clearances on this grade?"

I didn't know. In fact, I hardly knew what a restrictive clearance was, though I was aware they had been mentioned in the rulebook exam. Hurriedly, I searched till I found the clearance cards, and making them out according to directions, I managed to hand them up to the extra in time to prevent the train from coming to a complete stop.

As I gave the OS to the operator at Hesperia, he asked for the block for Number 1.

"Number 1 is coming close now," he added, "just put them by at one fifteen."

C. H. Clevenger

So far my work had been routine, but being alone in that lonely mountain office gave me a feeling of apprehension. I stepped outside to walk off my uneasiness. The sky was overcast with rolling dark clouds, but far in the distance the passing-track switch lights were blinking reassuringly.

As I stood watching, giant snowflakes whirled through the air, driven by a wind that nearly wrenched the semaphore pole from its moorings. The dimmed headlight of Number 1 appeared, followed by a series of short whistle blasts as the engineer observed the red order board. Feeling that it was my responsibility to keep the train moving, I rushed into the station, set the order board at caution, and with the speed that only desperation can produce, filled out the clearance cards and was in time to hand them up to the two groaning engines, which began a desperate battle to regain momentum on the grade.

Not until the third hoop swung from the conductor's arm was I seized with a feeling that I made a mistake. It occurred to me that restrictive clearances, on this stretch of track were to be issued only to freights, and that I was letting Number 1 in the block with two freight trains. In

those few brief seconds I visualized the treacherous curves toward Keir, and the two drags battling upgrade through the blinding storm, unaware of the approach of the passenger with its speedy locomotives.

The rear vestibule of Number 1 was open, but the brakeman was not in sight. My only thought was to get word to the conductor to stop the train so that my mistake could be corrected. Dropping my lantern, I grabbed the hand rails at the open vestibule door, and pulled myself up the rear steps of the Pullman car.

The train was gaining speed. As I rushed through the dim, curtained aisles of Pullman cars, I grew frantic at the thought of the impending disaster. I strode through three cars without finding a trainman, and though I noticed emergency cords on chair cars, I was unfamiliar with Pullmans.

The rails were clicking rapidly under the cars by this time, and I was torn with indecision. I wanted to do everything possible to avoid a wreck, but the manual block station couldn't be abandoned. In despair I opened the nearest vestibule door, peered blindly into the night and leaped. Fortunately, I landed on a snow-covered embankment and, after rolling for a considerable distance, I regained my feet.

Unconscious of my bruises, I dashed wildly in the direction of the Lugo station. It seemed hours before the dim light of

the office window appeared. Above the howling of the wind I could hear the phones ringing incessantly, and I dreaded answering. Prepared for the worst, I grabbed the westbound phone, and was greeted by the angry voice of Keir.

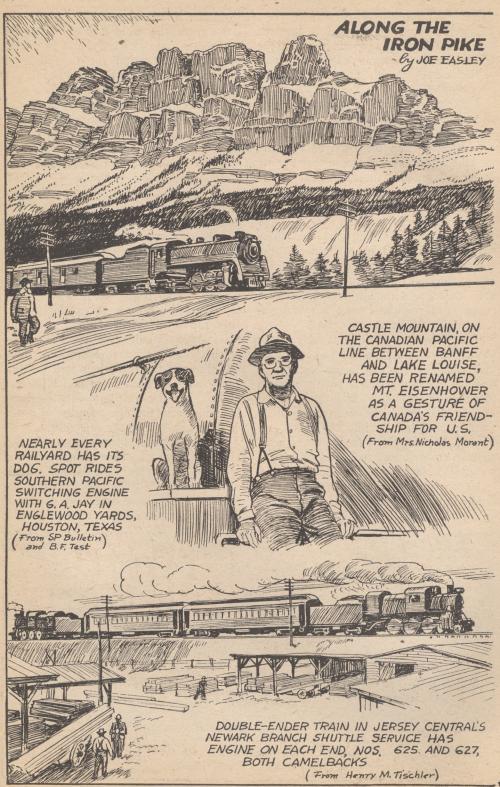
"Where the devil have you been? Here's the OS on the westbound drags."

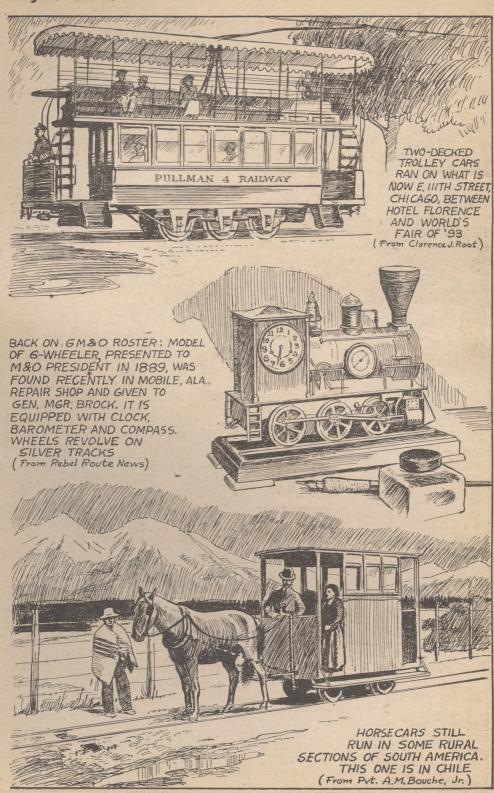
Luckily for me, the second extra had passed Keir at about the same time that Number 1 had entered the block at Lugo; and as the fact dawned upon me, I tried to speak with innocent composure, requesting the block for Number 1. Then, as if it were an afterthought, I told him to put the passenger in the block at that instant. I gave the same slightly erroneous information to the op at Hesperia and to the dispatcher. Not even the blistering tongue lashing from A.W.P.—because of my delay in answering his phone-could alter my good spirits. But I did pray that no one would ever check the dispatcher's train sheet in San Bernardino. and discover the marvelous speed Number 1 made between Lugo and Keir that night. Since then one line of the rulebook has had special meaning: In case of doubt or uncertainty, take the safe course.

The train-order boards at Lugo and Hesperia have long been dismantled; and to many old-timers Keir is but a faint memory. Double-track operation and automatic signals have taken over much of the job of guaranteeing safety on the rails.



Photo by Charles G. Greene, 254 S. Burnet St., East Orange, N. J. C&NW Freeport Express bypasses local at Melrose Park, Ill., as RPO clerk prepares to kick off mail pouch







NYNH&H official photo of freight-hauler No. 3501

On the Spot

Railfaring Men Sit in with the Editorial Crew to Swap Experiences, Offer Suggestions and Settle Arguments



FFECTIVENESS of centralized traffic control is shown in a recent report prepared by B. W. Molis, Rio Grande signal engineer, indicating that as a result of CTC installation

the running time of eastward freight trains between Helper, Utah, and Grand Junction, Colo., was cut 158 minutes, or nearly a minute per mile!

A similar reduction in running time of westward freights was shown, though the

checks were made during a period of very heavy traffic.

Molis says that while various estimates have been made of the increased efficiency of a single-track line when CTC was installed, a series of checks indicated that this efficiency is increased "to the point where it approaches 100 per cent capacity of a doubletrack operation."

During a seven-day test period, 476 trains were operated from the CTC board at Green River. Utah, or an average of 68 trains per 24-hour

period.

"It is generally conceded that 50 trains per day is capacity for single track and 100 trains for double track," he says. "On one day during the test period 72 trains were

handled. Train sheets for that day show it would have been possible to operate still more trains over the territory. Remember, too, that these trains were operating nearly 25 per cent faster than they were before CTC was installed."

The Rio Grande now has 343 miles of CTC operation, which, in proportion to total main-line mileage, is more than any other road in the country.

TUNNELS. We learn from Canadian National engineer F. W. Powers, Box 202, Smithers, B. C., that on the CNR

F. W. Powers

the distance from milepost 18.1, Frazer Subdivision, to milepost 13.4, Bulkley Sub, is an even 374 miles but there is not one tunnel on the entire route, although it is all mountain territory.

Mr. Powers says this data is taken from his working timetable, and

asks if anyone can match it.

From the same source he finds there are fifteen tunnels in the 29.5 miles from mile-





1929, third in '46



BEAVER is back on CPR emblem, following the publication last fall of the book, Railroad Avenue, which states: "Until a few years ago the Canadian Pacific perched a beaver on its shield. The busy little beast lent a picturesque quality that was typical of Canada but has been displaced in favor of the slogan, 'World's Greatest Travel System.' We miss the beaver." After CPR officials had read this item, D. C. Coleman, chairman and president, ordered restoration of the beaver, with a new slogan, "Spans the World."

> post 5.5., Yale Sub, on the Frazer Canyon. to milepost 35.0—an average of one tun-

nel per half mile.

Turning to animals, Mr. Powers writes: "Going east on a trip the other day my fireman and I counted 139 moose in sight of the track in 52 miles. Coming westward on the return trip, I slowed my passenger train sixteen times to avoid hitting moose on the track, and missed all but one of them."

Y/ORDS to an old song, Down by the Railroad Tracks, are wanted by an Illinois Central fireman, O'Brien, and his ex-railroader friend, Leon H. Lambert. 702 W. Center St., Decatur, Ill.

FIFTEEN APPLES, one carton of cigarettes, one can of tobacco, two fruitcakes, and a package of Railroad Magazines are among the items listed in The Locomotive Engineers Journal as having been donated recently to the Home for Aged and Disabled Railroad Employes of America, Highland Park, Ill.

Of the retired old "rails" living in this institution, some are crippled or bed-ridden; some cannot afford to buy postage stamps. Their eyes light up with pathetic eagerness when fresh reading matter comes into the Home, or maybe a box of cookies or a little spending money for distribution among them. Readers who wish to brighten their sunset years may send gifts, no matter how small, in care of George M. Palmer, the Home's secretarytreasurer and manager. Even a wellthumbed copy of Railroad Magazine is pounced upon and enjoyed by veterans who may never railroad again.

The Home is a four-story building near a C&NW station. It now houses 53 men. The oldest is John M. Berry, whose health is fairly good at 96. The youngest, Louis Bauch, is a wheelchair patient at 50. Midway between them is Elton M. Eversole, contributor to Railroad Magazine and owner of the world's largest known collection of switch keys. Residents are limited to members of three Brotherhoods-Trainmen, Engineers, and Firemen and Enginemen-who are "totally and permanently incapacitated and without means of support." They hail from all parts of the U.S. and Canada.

Mr. Palmer worked for the Monon as locomotive engineer and for the North

Shore Line as motorman and conductor. "Here in the Home," he says, "we have a big recreation room, billiard and pool tables, a library, a reading room on each floor, and a chapel for Sunday services and occasional movie shows. The Home was organized May 28, 1890, and incorporated 14 years later."

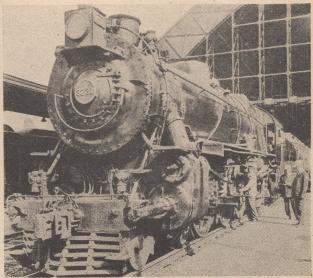
PRAIN-FERRY Lans-L downe, mentioned in our March issue, still operates across Detroit River between Detroit and Windsor, Canada, reports Clarence J. Root, 193 Moss Ave., Highland Park, Detroit 3, Mich. She was built in 1864.

FIRST railroad car ever equipped with wire recorders for the reproduction of music is Santa Fe diner 1450, placed in transcontinental service March 10th, this year. It is being followed by other diners so modernized, the installations being made as fast as equipment and labor are available. As new Santa Fe sleeping, chair and club-lounge cars are built they, too, will be given facilities for furnishing popular and semi-classical music as well as public-address systems for train announcements. These refinements are designed to heighten the pleasure of train rides.

in 1887.

MONAHAN'S CAT, which used to be widely chalked on rolling stock and other railroad property, pretty much as the signatures of J. B. King and Bozo Texino are scrawled today, is traced by Harry M. Groves, 4405 Ellis Ave., Chicago 15, Ill., to Harry Monahan, who was braking freight with him on the Chicago & Alton between Bloomington, Ill., and East St. Louis back

Mr. Monahan invariably carried a piece of chalk in his pocket, according to our correspondent, and rarely lost an opportu-



From E. P. Alexander collection

PRR 3731 at Broad Street station, Philadelphia, about thirty years ago

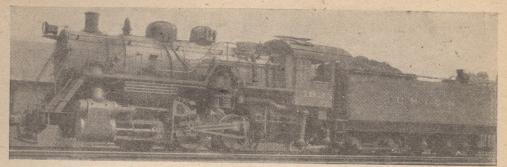


Photo by James F. Byrne, East McKeesport, Pa.

END OF STRIKE meant work resumption for No. 183 of 44½-mile Union Railroad, owned and operated by U.S. Steel at Pittsburgh, Pa.

nity to ornament boxcars with his trademark, the rear view of a cat and the name H. Monahan. Thus Monahan's cat became a legend known all over North America. Its originator was killed in an accident on the Denver & Rio Grande. Mr. Groves retired December 15, 1944, from 46 years of Illinois Central service, 58 years of railroading.

FRISCO

ARE DIESELS crowding out steam power? The present trend favors Diesels,

but there is no reason to believe steam will ever be supplanted entirely.

R. Tom Sawyer, Diesel equipment engineer, American Locomotive Co., Schenectary, N. Y., predicts that ten years from now Diesels will constitute from 20 to 40 percent of all locomotives operated in this country. Mr. Sawyer, however, is biased in favor of Diesels. A leader in the field, he helped to build the first Diesel locomotive sold in U. S., in 1925—a 300 hp. job turned out by Alco and General Electric for the Jersey Central, still in daily service (photo in our March issue).

"If we add all switching and road locomotives in use today," he says, "we find that more than 10 percent are Diesel-powered. This is unusually high, since the change has largely taken place in the past

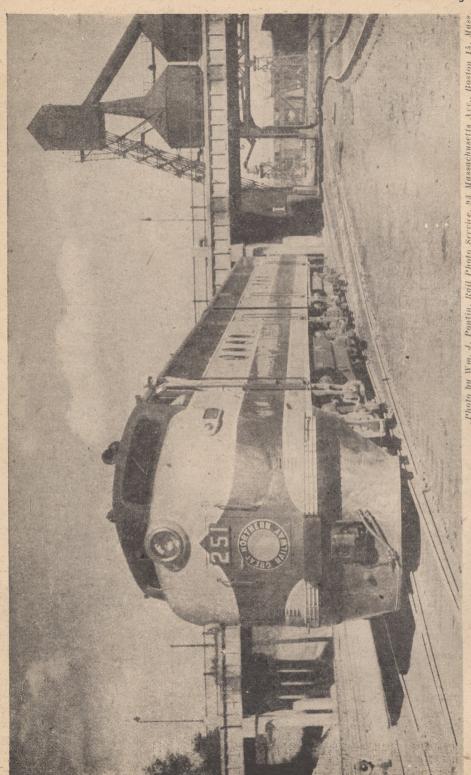
ten years. . .

"Each type of motive power will find its own place. No one is going to push one type more than another, unless it pays to do so; and the railroads will put that type of locomotive in service which gives them the greatest return on investment. This means that, with few exceptions, the railroads will use Diesels for all switching operations. The Diesel will have to fight its own way in main-line road service with the steam locomotive and, eventually, with the gas turbine as competitors. Class of service required by the railroad's local conditions will largely determine the most economical type of power.

"The electric locomotive has made an excellent record in congested areas, but there is practically no extensive electrification that is not backed by the steam locomotive or the Diesel. Self-propelled locomotives add to electrification the flexibility required under peak-load conditions."

On the Frisco, new 4000-hp., streamlined, Diesel-electrics will power the Meteor and Texas Special, beginning next October. Each will generate enough "juice" to supply the electric household needs of a thousand families. The power unit will consist of four 1000-hp., 12-cylinder, V-type, two-cycle, Diesel engines. Each of these engines, built by General Motors, is connected to a direct-current electric generator. The four can transmit 3000 kilowatts. The average American household's electric demand is three KW. which means that every time a new Frisco locomotive roars through a town it will generate enough power to supply a thousands homes with electric current.

"Such locomotives," says H. L. Worman, Frisco chief operating officer, "are



PROUDLY DISPLAYING MOUNTAIN-GOAT EMBLEM, a Great Northern two-unit passenger Diesel waits till it's time to leave for St. Paul Union Station to haul the Gopher to Minneapolis and Duluth On the Spot 103

capable of a top speed of 98 miles per hour. This, however, is less important than their ability to maintain high average speed. They safely take curves faster than steam locomotives, and accelerate far more rapidly than steam. When we put them in service with new lightweight train equipment, there will be smoother starts, stops and slowdowns on the Meteor and Texas Special. Jerky starts and bunchy stops will be eliminated."

FIVE relatives work for the Chicago Great Western on SantaRe same division and in the same kind of service, we learn from Pvt. R. C. Beach, 37810292, writing from the U.S. Army induction station at Fort Leavenworth, Kan. These are a man, his three sons, and a cousin, as follows: Percy McElrath, second-trick op at Randolph. Minn.; Alva, third-trick op at Randolph; Vernon, at Fredericksburg, Iowa; Eldred at Alta Vista, Iowa; and Cousin G. F. Morrill, Randolph agent.

An unusual M-K-T train crew went out of Denison, Tex., not long ago, consisting of Condr. Carl Flanery, Sr., and his two

sons, Carl, Jr., and Phil.

Speaking of families, D. L. Collins, Vidal, Calif., tells about the famous Mc-Neills of Derby, Kan. He knows three McNeill boys personally. The clan boasts a total of more than 420 years in Santa Fe service. First on the list is the late Jim McNeill, section boss. Eight of Jim's nine sons worked for the Santa Fe, while six of his seven daughters married Santa Fe employes. We have no record of the other son or daughter. Furthermore, four of Jim's grandsons are on the AT&SF payroll and two of his granddaughters said "I do" to staunch Santa Fe lads.

Another oddity was the recent retirement of George W. Backus of Canton, N. Y., and his wife, Pina, after completing a total of 88 years of New York Central telegraph service. George was Canton station agent, while Pina pounded brass at nearby Eden. Theirs is a rail romance. While George was agent at Tayville, N. Y., he also served as a school trustee. In 1901

he married Pina, one of the teachers, and taught her telegraphy. In 1902 she, too, became a railroader.

LDEST living railroad man, opines Lois M. Hurington, Drueke, 8038 Floral, Skokie, Ill., is Daniel Wedge, who became 104 last October and



is living with his daughter at 544 Pennsylvania Ave., Aurora, Ill. After serving as a Union soldier during the Civil War. Mr. Wedge went braking on the Burlington in 1875, later was promoted to conductor. He retired in 1917 at age 76.

FOURTEEN major airplane disasters in this country over a period of about two years cost a total of 289 lives, not to mention persons killed in lesser plane wrecks. The figures do not include crashes of bombers and other combat aircraft. During the same period only a small fraction of that number of travelers died in rail accidents, although the roads handle a very much heavier volume of traffic. The air disasters follow:

Feb. 10, '44, Memphis, Tenn., 24 dead Aug. 3, '44, Atkinson, Neb., 28 dead Dec. 25, '45, Harrisburg, Pa., 10 dead Jan. 11, '45, Los Angeles, Calif., 24 dead Feb. 23, '45, Marion, Va., 17 dead Mar. 14, '45, San Carlos, Calif., 7 dead Apr. 14, '45, Morgantown, W. Va., 20 dead Apr. 20, '45, Sweetwater, Texas, 25 dead Sept. 15, '45, Kansas City, Mo., 24 dead Dec. 8, '45, Billings, Mont., 19 dead Jan. 18, '46, Cheshire, Conn., 17 dead Jan. 31, '46, Elk Mt., Wyo., 21 dead Mar. 3, '46, Terra Blanca Mt., Calif., 27 dead Mar. 19, '46, Hobart Mills, Calif., 26 dead

The list covers all sections of U.S. and all seasons, with the emphasis on California and wintertime.

Aside from wrecks, 20,000 airline passengers in the U.S. during last December alone had to be off-loaded at points other than their ticketed destinations because of bad weather. This was disclosed at a meeting of the Air Transport Association's operations committee, which had



New Haven Photo

MAIL CRANE. Riding caroussel and reaching for brass ring is good training for one of postal clerk's duties

convened in a New York hotel to act on the situation. Need for such a remedy was further emphasized by the fact that several committee members who had taken off from Washington by air to attend the meeting were deposited, hours later, at such remote points as Hartford, Conn., and Boston, Mass. They reached New York belatedly by train.

Mishaps and inconveniences of a similar sort, bound to occur from time to time wherever transportation must take its signals from weather, plagued the early days of railroading. No doubt the airlines will meet their problems with like gal-

lantry and efficiency.

RAIL-ACTOR. From ham operator to ham actor via the U. S. Army was a short step for Bruce Cowling, son of L. A. Cowling, Katy agent at McAlester, Okla., reports "Milepost" Paul McGuire, Santa Fe section foreman, Fairfax, Okla. However, in all truth Bruce was more than a ham op, he was agent at Kiowa, Okla., before he went into the Army Signal Corps. And again, he is more than just a ham actor, for he has been signed by M-G-M for leading roles and has, in fact, appeared in one film. Handsome, six-foot-three-inch Bruce previously took

ROACH'S true tale, "Lost Crummy" (January issue), prompted A. F. Von Blon, Jr., 1839 Texas Ave., San Antonio 1, Tex., to write as follows:

part in the film Till the Clouds Roll By.

"In about 1903 Hiram Knox built an eight-mile railroad, the Livingston Southeastern (now abandoned), between his sawmill and the town of Livingston, Tex., where it connected with the Houston East & West Texas (now SP). Four years later he received a certain rush order for lumber. Having no flatcar available, Mr. Knox loaded the freight into his one and only caboose and started it on its way to his customer at a far distant point. The crummy failed to return. Mr. Knox was never able to learn what happened to it. I wonder if something like that has happened to other short lines?"

On the Spot



Photos by Kenneth MacDonald, 1114 E. Prince St., Truro, N. S.

BATTERED beyond hope of repair in rear-end collision at Campbell's siding, Nova
Scotia, Canadian National caboose No. 78270 is put to the torch

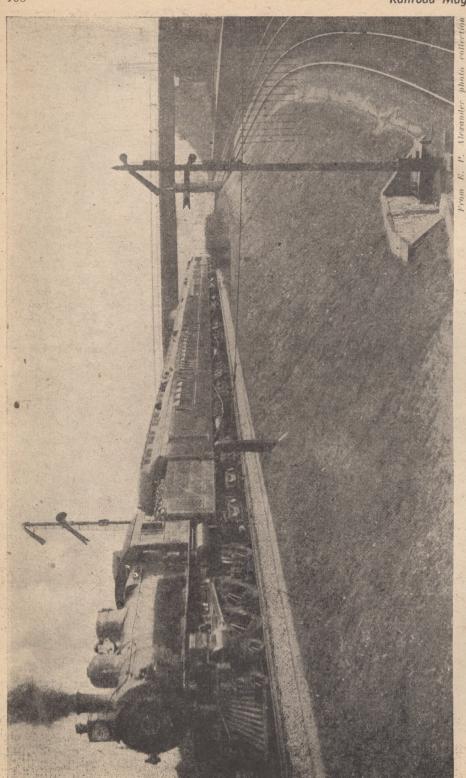
Getting back to Charles A. Roach, a retired boomer brakeman-switchman known as "Silent Slim," E. T. Mulquin visited him the other day at 1523 S. W. Mill St., Portland, Ore. "Mul" is a retired SP dispatcher also living in Portland. Here is his account of the visit:

"Roach has an upstairs room in a frame dwelling of about 1880 vintage. When I entered he was fully dressed, lying on the bed, taking it easy. In the room stood a couple of easy chairs, an old typewriter on a stand, a bed, and a table piled with

books, magazines and writing material, also a can of smoking tobacco, Did you ever see an oldtime small-town editor's office all cluttered up? Well, this genial old boomer lives in such a room.

"Silent Slim is about six feet, slender, bald, and alert as a young man. I found him friendly, interesting to talk with, and full of ideas for stories."

WANTED: Small steam engine and car, 24- to 36-inch gage, for non-operational exhibit only. "Even a small



BEFORE PENNSY MOTIVE POWER HAD KEYSTONE NUMBER PLATES. The 116 stands in West Philadelphia near old 32nd Street station (since abandoned). Highway bridge in background leads northward to Fairmount Park industrial steam engine and car might do," writes James R. Fouch, La Paz Guest Ranch, Palm Springs, Calif. "Where can I buy them?"

TRACKSIDE GRAVE may be seen on the Frisco's Southern Division near Whetstone doubling switch and Mountain Grove, Mo., reports Lynn Newton, 221 Maple Ave., Mountain Grove. A crude limestone marker reads, "Baby Died May 17, 1897." Although the tumulus is located by the right-of-way fence, it is not on railroad property, but Frisco trackmen tended it for 28 years. Then in about 1925, Missouri State Highway workers built U.S. Highway No. 60, and later cared for the tomb. Finally, in 1941 the highway was moved half a mile north of the track, whereupon Frisco employes resumed their care of the grave.

STEAMER PORTLAND, Township whose fate was unsolved in a fewfore, true tale, "Stalled in a Blizzard" (March issue) went down in a hurricane on the fearful night of November 26, 1898, at the time when "Hash" McGann, the New Haven freight brakeman who wrote our tale, was battling a wild snowstorm enroute from Boston, Mass., to Willimantic, Conn.

Facts about the side-wheeler come from William R. Taylor, Box 250, Warwick Neck, R. I., who writes: "I recall that blizzard very plainly; my wife and I were in Boston at the time and had a tough job getting home"; from Ralph E. Johnson, 11 James St., Brockton, Mass.; and from an anonymous old-timer in Providence, R. I., who states: "I remember the *Portland*. I was aboard her more than once but not the night of the wreck."

The sinking of this steamer on her way from Boston to Portland, Me., was one of the worst disasters in New England waters. Among the hundred or so other craft lost in the same gale was the granite-laden schooner Addic E. Snow, named for a little girl who is now an elderly spinster of Rockland, Me. Because some of the schooner's flotsam was found washed

ashore with *Portland* wreckage, seafaring men believed the passenger liner had rammed the freight carrier. Acting on this hunch, Edward R. Snow, a deep-sea diver of Winthrop, Mass., with his diving-equipped ship *Regavlas* and two other divers, located last July first the sunken hulls of both missing vessels in about 140 feet of water off Cape Cod. Both are shapeless black masses of wood, mussels and scallops, festooned with long green streamers of seaweed. Thus the marine mystery was solved.

LINES

BEANERY RAILPIX.
"On a recent trip to Colfax, Calif., 2418 feet up in the Sierra Nevadas," writes J.
Peterson (no address given),

"I encountered a restaurant situated on alternate U. S. Highway 40, less than 300 feet from the SP's Overland Route tracks. The grill displays a choice collection of action shots of locos and trains, arranged in frames. Most striking are views of SP cab-in-fronters pulling reefers over the Mountain Division.

"But the photo gallery is not the only railfan's delight. Through two huge windows you can view a lively procession of SP trains endlessly pounding the high iron. During the two happy hours I spent there I saw a dozen trains, with 25 locomotives."

DEFENDING his new book, Highball (D. Appleton-Century, New York, \$6), against a comment in our April review that "too many" of its photos "show a conventional wedge-shaped train with minimum background," Lucius Beebe writes from his N. Y. Herald-Tribune office:

"May I rise in meeting to say a word or two about the 'wedge-shaped' action shots of trains that apparently disturb a number of persons concerned with railroad literature and photography?

"It is all very well for editors to beg for railroad action shots which do not fall in this general category: the three-quarters head-on shot with trailing smoke and



Photo by Donald W. Furler, 65 Glen Are., Glen Rock, N. J.
LEHIGH & HUDSON freight, CNJ engine 879, eastbound for Maybrook, N. J.,
passes CNJ engine house, Bethlehem, Pa.

with the smokebox, pilot and front of the locomotive dominating the print; but, except for a very limited number of possible variations, just what do they suggest?

"There are a few variations on the theme: below-the-rails shots, trestle shots, right-angle profile shots, overhead shots and going-away shots. All responsible rail photographers include these in their repertory when they are available and suitable; but, unlike Shakespeare's *Cleopatra*, the subject has no infinite variety. It has, in fact, hardly any.

"The locomotive is the essential and interesting part of any train shot, the train itself being almost always so similar and stylized as to be negligible except for purposes of composition. The only way in which the locomotive can be pictured so as to show in detail its type, wheel arrangement, side rods and motion, valve gear and general outline is from three-quarters head-on. You simply can't include in the economy of the picture these essentials from any other angle. This is the way you must photograph your locomotive. It is up to the photographer to work from this basic requirement and hope to incorporate in his shot details of the train's consist and smoke and steam exhausts as indexes of speed and action. Backgrounds he must eschew if it is a train picture he is engaged in shooting.

"The parallel between train photography and the portraiture of persons is

very close. The only part of the human person that is generally accepted as being photogenic is the face and head. Costume is interesting, the rest of the body may be incidentally engaging, the hands expressive; but by and large, it's the face that counts."

BALDWIN built two experimental 4-2-2 engines for the Philadelphia & Reading, Nos. 385 and 386, about fifty years ago, recalls William H. Crawford, now living at 972 Par-

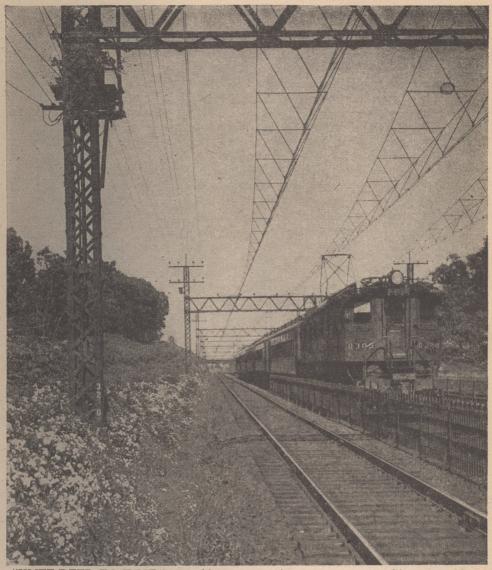
rish St., Salem, Ore.

"For a while," he continues, "they operated non-stop as mile-a-minuters between Reading Terminal, Philadelphia, and Jersey City. The English system of one pair of drivers was given a good tryout, but I believe that later a second pair was added, due to excessive slipping. A Baldwin designer who had something to do with this experiment is William A. Austin, Wyman Park Apts., Beach Ave. and 40th St., Baltimore, Md."

ONLY CASE we know where a New York Central engineer received a Pennsylvania Railroad medal was Fred Lint-

ner. The story of his heroism is told by *Titusville Herald* reporter Clifford Patterson. It seems that at Titusville, Pa., on December 19, 1926, a fire was raging at

On the Spot



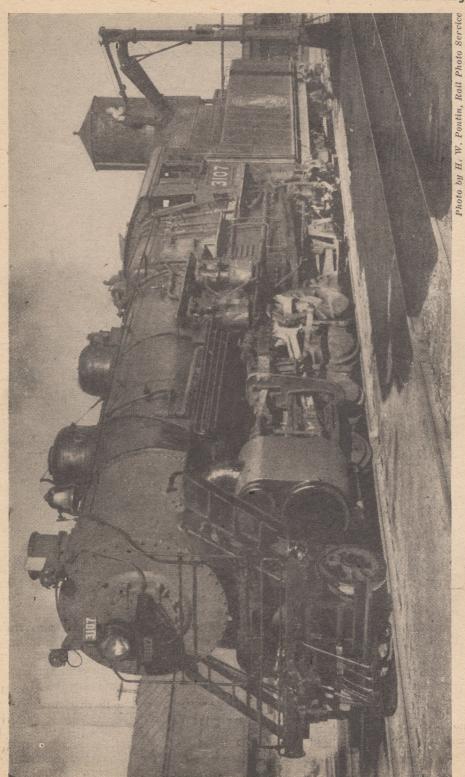
"KNEE-DEEP IN JUNE." Rambler roses, a joy to commuters, bloom on New Haven's well-kept suburban right-of-way

the American Oil Works. Lintner, Pennsy Condr. James B. Deegan and Brakeman Frank W. Geary formed a volunteer crew that pulled out of danger five burning tank cars loaded with inflamable oil products, thus preventing a terrible explosion and a much more destructive fire. All three received Pennsy medals.

Lintner died last year, but Geary is still railroading, running a yard goat at Corry, Pa. Deegan lives at 510 Superior St.,

Titusville. Reporter Patterson visited him the other day and got the following story from his lips:

"One Sunday twenty years ago the bottom of a still dropped out at the oil works. I heard the refinery whistle blowing and drove over to see what was wrong. Five loaded tank cars stood near the flames. John Beck, one of the refinery owners, said they would blow up and when they did the town would get a bad shaking be-



MIKADO TYPE TAKES A DRINK. The locomotive is Great Northern No. 3107, one of 107 engines in Class G-1, and the scene is Great Falls, Mont. sides a big fire. It was a tough spot.

"Seeing Lintner, I asked him if he would bring the local freight engine down and pull the cars away. He and Geary agreed to take the chance if I would. We had quite a time getting the fire chief to cut the hose lines so we could get the engine through. We ran her down the Pennsy track to the transfer switch to get over to the NYC tracks. Probably an hour elapsed from the time the fire started until we pulled the locomotive into the scene.

"It was unbearably hot. The tanks had already started to warp, platforms were burned off, journal boxes were aflame, and frames were out of shape. Even the tracks had heaved until it looked like a hopeless job of dragging the cars out. Lintner was in the cab. Geary and I clung to the engine on the side away from the blaze, but even at that our hair got singed, our faces scorched.

"The first time we hit the cars we missed a coupling. We tried again. This time we caught the cars and pulled them away. Then we used extinguishers on the fire that was burning on the platforms and journals. Those tanks might have blown up, taken us with them, and rocked the whole town."

Incidentally, Edgar T. Stevenson, editor and publisher of The Titusville Herald, is an ex-rail and railfan. Quoting exreporter Harry Ridgway, now of Hydetown, Pa.: "When anything unusual happens in either of the two Titusville railyards, NYC or Pennsy, Mr. Stevenson usually goes out and gets the story himself instead of sending a reporter."

Condr. Deegan took sick recently. Stevenson visited him at the hospital and gave him two new railbooks. Hubbard's Railroad Avenue, which mentions Deegan's heroism in 1926, and Beebe's Highball, because of its chapter on cabooses.

Stevenson says: "As a boy in the early '90s I worked on the Franklin branch of the old Lake Shore & Michigan Southern (now NYC). The road then had many four-wheel boxcars and gondolas. Can some Railroad Magazine reader tell me where to get photos of them?"

NICKEL PATE WORST NIGHT in the 56-year rail ca-ROAD reer of Henry F.

Rediger, recently retired NKP engineer of Kokomo, Ind., was February 15, 1905. when the mercury showed 35 below zero at Mulberry, Ind., on the Tipton-Rankin run. Information sent to us by Earle Franklin Baker, rail-poet, 1310 N. Mc-Cann, Kokomo, quotes the old hogger as' saving:

"A high wind fanned a blizzard that night; snow drifted from four to six feet deep. Ice lay on the roads and nearly covered our engine. Between Lafavette and Rankin we saw four dead engines, all frozen. But we made it through in about seven hours."

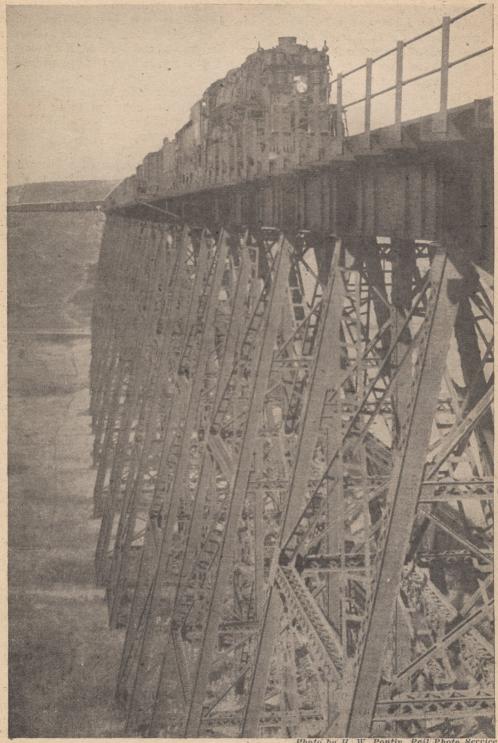
Rediger is the author of a standard textbook, A Serial Examination for Locomotive Engineers and Firemen, that has been widely used in this country, in Canada, Mexico and even, to some extent, in Sweden.

BUS DRIVER William Clason has quit the stink buggies and is now a B&O brakeman. In BEO short, he has "seen the light." -Bill lives at 10918 St. Mark Ave., Cleveland 11, O., and owns one of the only three known files of Railroad Magazine that are complete since the very first issue. October, 1906.

"Am getting along fine in the new job," says he, "thanks to Railroad Magazine, over which I've been poring for years. In fact, I knew so much about railroading when I started to work for the B&O that some old-timers who broke me in insisted that I had railroaded before, but the only other rail job I ever held was in the Pittsburgh & Lake Erie's car record department years ago."

TCEBOUND. "While I was in Asheville, N. C., one day last winter gathering material for Railroad Magazine," writes Herbert G. Monroe, Southern ex-brake-

man, 2343 Venetian Drive, S.W., Atlanta, Ga., "an ice storm completely isolated (no



GREAT NORTHERN engine 2053 wheels 7000-ton train downgrade over Gassman Coulee bridge enroute to Minot, N. D.

On the Spot

pun intended) the city from east and south. All wires were down and the suddenness of it caught many trains on the east side of the Blue Ridge Mts. without

running orders.

"It was interesting to observe the way dispatchers got trains moving on the two divisions where signals and wires were useless. In one instance, where a passenger train had reached the top of Saluda Mt.—as far as it could go with the orders received—a signal maintainer, walking from Spartanburg to Saluda, found a wire intact west of Saluda. The dispatcher called an order to him. He, in turn, called it out to the operator standing on the ground below. Number 9 left Saluda a few minutes later."



MT. WASHINGTON Cog Railway in New Hampshire will reopen this June and remain in operation through Columbus Day, according to a letter which Arthur S. Teague, the road's vice

president, sent to Charles E. Fisher, president, R&LHS, 20 Wilde Road, Waban 63, Mass. The letter makes it clear that this famous old road, completed in July, 1869, has never been abandoned, but service was discontinued for a year during World War I and for three years during World War II.

"We have seven locomotives and cars," Teague writes. "The Lizzie Bourne cenotaph near the mountain top still stands in memory of the girl who died there in a blizzard in 1855. The marker is freshly painted."

THE OLD CABOOSE, a new 29-page book for tiny railfans, $8\frac{1}{2} \times 11\frac{1}{2}$ inches, is bright and entertaining. The author is Evelyn F. DeWitt; the publisher, Glade House, 303 Alcazar Ave., Coral Gables 34, Fla.; the price; \$2.50. Unfortunately, Ann Kirn's three-color illustrations picture locomotives like gobs of india-rubber squeezed into absurd shapes.

Two new railbooks are scheduled for publication this fall by Creative Age Press, New York: histories of the D&RGW and the Milwaukee Road, by H. Brayer and A. Derleth respectively.

FOUR YEARS ago we printed an item about Doris Townsend, a railfanette of 16, whose father V. B. Townsend, Roanoke, Va., is a Norfolk & Western demurrage clerk and inventor of the Graham-White locomotive sander. Upon reading the item, a railfan of 20 named



Doris Borsum

O. H. Borsum wrote to Doris from the U. S. Army Air Forces B-17 School in Amarillo, Tex., where he was stationed. Doris answered. In 1943 the two met in Washington, D. C., Union Station. They fell in love and were married last Christmas Eve, thanks to *Railroad Magazine*. Their address is 4935 Duffield St., Philadelphia 24, Pa. The husband works in the Edward G. Budd Mfg. Co. plant near Bustleton, Pa. His hobby is collecting photos of railroad passenger equipment.



CANADIAN NATIONAL has two examples of a man and his son both on the pension roll, reports Richard

Riley, grand lodge representative, International Ass'n of Machinists, Oxford Hotel, Toronto 2, Canada. This news was prompted by pictures of Fred and Roy Thiem, Illinois Central father and son, in Joe Easley's Along the Iron Pike, March issue. James W. Riggs, 95, has been receiving a pension for 29 years. His son, William, retired from shopwork a few months ago. The other CNR case is that of J. Leroux, Sr., 89 pensioned in 1925 from the agency at Dorval, Que., and J. Leroux, Jr., who retired in 1943.



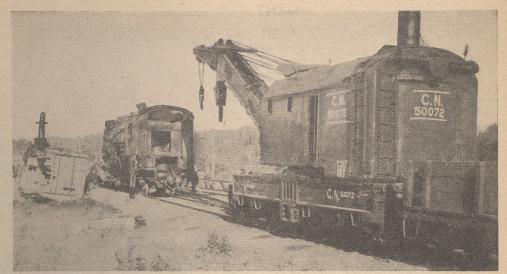
The Big Hook

HALFWAY into a siding for a scheduled meet at Petry, Ont., eastbound CNR wheat train reeled from 40-m.p.h. contact with a westbound merchandise—left tracks to bury itself in debris of twenty-four cars damaged beyond repair. The two big hooks pictured above lifted wheat train's engine, set it back on tracks. Match-box remains of wreck, including splittered car of amazingly undamaged whiskey shipment, were cleared away in a few days. Wabash occurred September 10, 1937. Wheat piled in foreground above, hid switch with slender green spears the following spring—many months before crew of westbound

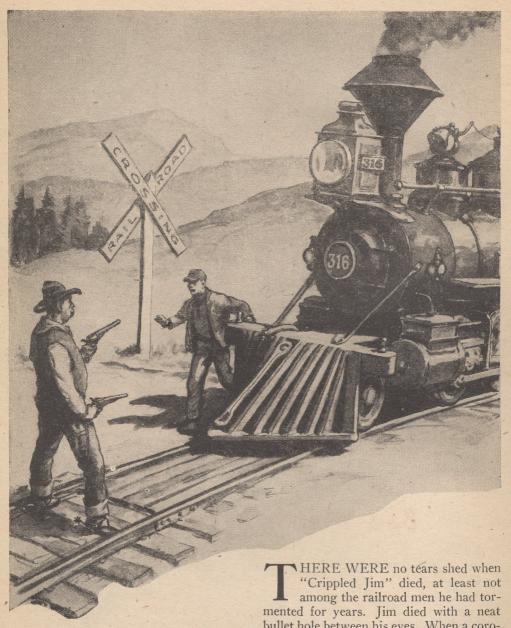
train were reinstated

Photos from John Cooshek, Quorn, Ont., Canada





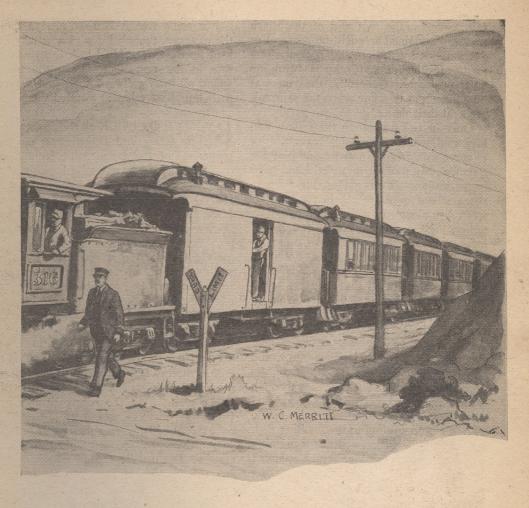




Narrow-Gage Veteran Recalls
"Crippled Jim," Who Used His
Six-Guns Once Too Often

"Crippled Jim" died, at least not among the railroad men he had tormented for years. Jim died with a neat bullet hole between his eyes. When a coroner's jury decided his passing was a justifiable case of killing, Jim was buried without delay. But he has not been forgotten, and won't be, until the last of us narrow-gage rails has answered Gabriel's trumpet.

Jim was ring-leader of a band of gun packin' cow pokes who worked on various cattle and hay ranches above Cimarron,



Bad Man of the Cimarron

Colo., on the Denver & Rio Grande narrow-gage in the late 1890s. The only thing that made Cimarron a town designated on state maps then was its railroad. Half a dozen engine crews worked in helper service out of there, since the town lay at the foot of a six-mile stretch of 4 percent grade known as Cerro, or Squaw Hill. The other door to Cimarron was the 15-mile gorge, the Black Canyon of the Gunnison, and for almost half a century the scenic attraction of this 3-foot gage.

Back in the late '90s, some of the women of

By GILBERT A. LATHROP

Cimarron—railroaders' wives most of them—decided that the one saloon in town was a sink hole of iniquity which was keeping their men in a more or less chronic state of drunkenness. So they succeeded in getting the town incorporated. From there to an election which would decide upon prohibition in Cimarron was a quick step. It is whispered that several stout drinkers packing severe hangovers turned the tide in favor of the drys. The fact remains that Cimarron went dry.

Sapinero, another bustling little moun-

tain town on the east end of the Black Canyon, remained an oasis, however. For years the saloon there did a flourishing mail-order business, Cimarron being its chief customer. Generally, the run was heaviest about the time when the railroaders held their dance.

Once or twice a month the rails would hire a fiddle player named "Heavy" Miles to come over from Montrose and play for a dance. My mother seconded him on an organ, and the crowds gathered in the one-room schoolhouse. I was just a kid, but was taken along to see the fun. Of course, notices of the dance were posted in the local grocery store and the cow punchers above town would get the news. So it was the usual thing that a couple of days before the date, one of the punchers—generally Crippled Jim—would wire Sapinero to send several gallons of whisky down on Number 315 on the day of the shindig.

Every night was the same. Along about seven everybody in Cimarron would hear the punchers coming, their horses spurred to dead lopes, as they rode through town firing their six-guns in the air and whooping at the tops of their lungs. They'd gallop straight to the hitching rack in front of the grocery store, drumming across the wooden bridge which spanned the river. Hitching up their sweating mounts, the cowboys would file into the store led by Jim.

I still can see the troop. Barrel-chested Jim, whose right leg was six inches shorter than his left, dangled two Colts from his hips and wore wide-brimmed Stetson set rakishly on his sandy hair. The others seemed content just to trail behind and follow orders. Spurs jangling and scratching the floor, they'd form a line in front of Old Man Brower, the proprietor.

"Now listen, Brower," Crippled Jim would say in his high, nasal voice, "us fellers are gonna leave our artillery with yuh fer safe keepin'. We aim to take in th' hop tonight. If we got our smoke irons with us, we might start shootin' up th' town, which we don't want to do. So," and he'd unbuckle his cartridge belt, "lock 'em up. Don't let us have 'em, even if we come beggin' fer 'em."

For some reason Brower always took the weapons, though I don't know why he kept up the farce. He'd lock them in the safe in the post-office. Then the gang would all head gaily for the depot where their liquid refreshment awaited them.

BY NINE O'CLOCK all the crews with their wives and sweethearts, plus a scattering of the ranch folks from "up country," would be assembled within the schoolhouse. Across the wye, beyond the D&RG bridge which spanned the river, Mrs. Mack, genial wife of the section foreman, would be filling her big coffee pots and making sandwiches. Then at midnight, the gang would head for the section house, where lunch would be served for two bits a plate, but this was providing the dance hadn't been "busted up" by Jim and drunken cow punchers.

Very few of our dances ended at dawn; Crippled Jim saw to that. The romance and glamor of Western cowboys have been written and sung about to twanging guitars, for years; but there was little of either attached to the rowdy drunks at Cimarron. If there was, none of us rails could see it. Just when a dance was in full swing, they'd roll in, well tanked up with whisky. Jim usually carried a half-empty jug and his one idea was to get at the general store.

"Gawd bless our happy home in Ireland!" he'd howl at the top of his lungs. This was followed by a long-drawn "Wa-a-ait a minute!" Booted feet would begin kicking a tattoo on the doors of the store, until Brower left the dance, muttering to himself.

"We want our artillery, Brower," Jim would yell when the owner showed up. Brower sometimes tried to argue, but you couldn't be persuasive when your opponent brandished a thick jug.

"Give us our sixes or we'll wreck yore dump!" Jim would order. So Brower would unlock the safe and turn over the guns.

It was only a matter of rushing in then, shooting out the oil lamps and kicking over the benches to break up the dance. The women would scream, kids howl, rails

curse angrily, while the punchers roared drunkenly. Since the railroaders were unarmed, the decisions all went to the horsemen, who finally rode off to bed down and sleep it off.

But this soon grew too tame for the bunch. They turned to riding up and down town firing at the buildings that lined either side of the main street. Before the beanery was finally torn down, Black Canyon Hotel was seared and nicked with bullet holes.

One night the playful troop allowed our dance to progress unmolested. Around about twelve, the crowd went over to Mrs. Mack's for lunch. But just as they were starting to eat, in staggered Jim waving his six-guns. He stepped right up to the door leading to the kitchen, through which the pantry with cups, saucers and plates neatly arranged on the shelves could be seen. Jim began shooting from the hips. There is little denying the fact the renegade was a dead shot. He shattered every dish on the shelves.

About that time Eddie, Mrs. Mack's son who was a locomotive fireman, took part. Rushing up to Jim he smashed out savagely, landing a resounding wallop to the jaw. Jim braced his short leg against the door frame while he took time out to holster his smoking guns. Young Eddie was no match for him, and was soon knocked down. Then Mrs. Mack took a hand. Snatching a broom she went for Jim, beating him over the head and shoulders.

Within a few minutes, the brawl extended to a gang fight between the railroaders and the cow punchers. It continued till every man had his share of slugging, and not a piece of furniture was left in place or condition. But for all their vigor, I have to admit the rails came out second best.

Some months later the punchers broke up another dance. This time—perhaps because they had more red-eye under their belts—they rounded up all the stray dogs they could find. Following this, they methodically robbed every chicken coop in town, and then turned dogs and chickens loose together in the schoolhouse which

we had deserted. Next morning the interior was a bloody shambles.

The railroaders called a meeting and demanded action. Warrants were sworn out for the arrest of Jim and his bunch, and the sheriff sent a deputy over on the afternoon passenger train from Montrose. He found Jim and the gang camped out several miles above town, still well supplied with whisky. They greeted him cordially, offering him a drink before he proceeded to make his arrests.

The deputy agreed, being tired, thirsty and hungry. When he awakened, several hours had gone by—and so had the cowboys. They'd stolen the warrants from his pocket and vanished, leaving the deputy to return to Cimarron with a far-fetched yarn no one believed. Disgruntled, he went back to Montrose.

WE SAW NOTHING of Jim for some months. The town folks were just about resting easy, when we got warning of another visit. Several gallon jugs of whisky arrived on the morning train and everybody knew things would happen. The gang galloped in shortly after noon, deposited their guns with Brower and headed for the depot.

The station had a wooden platform extending across the front to the end of the Black Canyon Hotel, where it terminated in an abrupt drop of some ten feet. Our agent, an elderly fellow named Walters, used a four-wheeled truck to unload mail, express and baggage. Once the gang saw this they decided it would be fun to hop a ride.

Piling on, one on top of another, they left Jim and one companion to do the hauling and pushing. Down the platform they rolled, yelling with drunken glee, the two cowboys playing horses at a quick trot. By the time they came to the end, they had the truck really rolling. There, Jim merely stepped to one side while the other gave a final prodigious heave and the car sailed off into space.

The party was completely ruined, except for Jim and his helper. They were a well-skinned and bruised bunch as they limped back to the store, and bought all

Brower's salve, arnica and sticking plaster. That was the first such night the town was not shof up.

Shortly afterwards Jim came to town alone one afternoon and picked up a gallon of whisky. He went on a "high-lone-some" that evening, making the night resonant with his "Gawd bless our happy home in Ireland," punctuated by a roucous "wa-a-ait a minute!" Before midnight he decided he needed sleep and picked a spot on the track leading to the stockyards as a nice comfortable bed, using one 45-pound rail as a pillow while his hips stretched across the other.

There was increased activity about the four-stall roundhouse, denoting something was running, just around the time Iim retired. Soon flaring oil torches danced around a couple of 35-ton Moguls as their engineers oiled around. Blowers began roaring, then the two little mills, with cylinder cocks hissing and oil headlights throwing circles of orange light before the massive cow catchers, moved up the leg of the wye which crossed the Cimarron River. On the main line's steep four percent gradient, the engines were backed down with wide-open throttles for a short distance. This procedure cleaned out the cylinders, flues and diamond stacks, and kept dirt condensation from falling on the polished jackets, bells and whistles.

One of the engines was slated to back down to Crystal Creek, a mile and a half eastward in the lower depths of Black Canyon, and couple behind an approaching freight to assist it up to Cimarron. Since none of our engines had back-up headlights, no great speed was made on these nightly trips. Accidents were rare because rocks on the track appeared blacker shadows, and starlight made the rails shiny.

A young brakeman named Jack Mahoney was parlor man that night. When his train went through Crystal Creek he dropped off at the spur, lined out his helper and coupled her against his still-moving caboose. They were doubling Cerro Hill that night. In Cimarron, Jack went over and cut off what loads would be taken on the second trip. He backed them up, threw the stub switch leading to the stockyards,

then he went high, to watch where they were shoving.

Because he'd have to "tie down" this cut, Jack carried his brake club under his arm. His eyes straining into the darkness fixed upon the glistening rails. Suddenly he squinted, leaning forward. It seemed that something was laid across the rails. Jack's lantern came up in an easy sign, then signaled a big stop. Brakeshoes clattered, draw bars rattled and the cut stopped about five feet from the obstruction.

Muttering angrily, Jack climbed down the side ladder and stepped toward the obstruction. "Well I'm damned!" he ejaculated and lowered his lantern for a closer look. Jim was snoring peacefully, his Stetson over his eyes. Jack prodded him with his brake club.

"Listen," shouted Jack, mad as a hornet, "you can't sleep here. Get up!" He poked him again, sharply.

"What th' hell—" snarled the puncher, and sat up glaring at his tormentor.

"We got to use this track," explained Jack. "Now get off it."

For answer Jim got to his feet and lunged a smashing blow at the young brakeman, which might have killed him had it landed. Jack side-stepped it neatly. His Irish temper flamed though, and bringing his club down on the drunk's head, he put him quietly to sleep. Then the brakeman dragged Jim to clear, climbed back on top and finished putting away his cut of cars.

Next morning Jim awoke with a knot on his head the size of an egg, a hangover, and a hazy recollection of events of the night before. One thing he was certain, however. He swore he'd "smoke up" the railroader who'd bashed him with the club.

So Jim began hanging around the depot. That afternoon the train Jack broke on rolled down the hill and halted on the main near the water tank. Luckily for Jack, the enraged cowboy wasn't around at the time. They were just ready to leave when Jim came limping up behind the caboose, and recognized the brakeman. He tried to catch him by running, but his crippled leg made speed impossible. Seeing this he

fired several shots after the departing caboose, but none of them hit the crew.

Yet for a long time after that, Jack Mahoney hid in the caboose every time his train reached Cimarron. He only came outside when the rest of the gang had made sure the troublesome cowpuncher was nowhere around.

THE NEXT STUNT the gang pulled happened on July 4th. Well fortified with Sapinero rot-gut, they went roister-

ing around town, breaking up the railroaders' picnic and running everybody indoors. Then one of them remembered that the D&RG kept caches of dynamite, fuses and caps hidden at various places throughout the canyon. We used these to break massive granite chunks which regularly rolled down and blocked the main stem.

There was one cache of several boxes planted in a cave near the spur at Crystal Creek. The band stole a push car and rode down the stiff grade, reaching the spot



without staging a cornfield meet. They found the dynamite okay, but no fuse or caps. Then loading half a dozen boxes of the explosive on the car anyhow, they shoved it all the way back to town.

"We'll wake 'em up," chuckled Jim. "An' if any of their damned wives has got eggs settin' we'll fix 'em so they won't hatch!" (It's claimed that a heavy explosion in the vicinity of setting eggs will kill the embryo inside.)

"How're yuh gonna tetch 'er off, Jim?" asked Tobe Barnes, a bean pole with flap-

"I'll show yuh," said Jim, beginning to pull sticks of the explosives out of a broken case.

Jim tied a piece of rope around 50 sticks, carried them across the tracks where he set them against a granite flank about a hundred vards from the depot. Then he went into the freight room of the station and came out with a torpedo. He fastened this on the bundle of dynamite so it formed a small bull's-eye.

"Plug up yore ears," he yelled and took a stand on the depot platform. Jim shot from the hips, first with right, then left. Nothing happened. After half a dozen quick shots he jerked off his Stetson,

stamped on it.

"I'm a loosin' my grip," he bawled. "I'm a loosin' my shootin' eye. We'll take a look where my bullets has been hittin'."

Some idea of his skill with sixes can be gleaned by the fact the torpedo was literally riddled when they inspected it. The setting hens were saved in Cimarron and people were not deafened that day simply because hitting a torpedo with a bullet

wouldn't explode it.

On Halloween of that year, Jim and his gang made a discovery. The only home in Cimarron they hadn't "smoked up" was the one belonging to my father, Engineer Lewis R. Lathrop, who wrote My Narrow-Gage Album. They decided to take care of that matter pronto. But when Dad heard about the plans of the bunch, he took down his 12-gage, double-barreled shot gun, loaded it and sat behind a darkened window, waiting for the visit.

I remember how I hung close by, scared

to death he might be shot, for he'd sworn he wouldn't stir. However, the gang failed to come near, though I never found out why. I do know they shot up the Black Canyon Hotel, the section house and the depot, as well as a couple of other homes that night. Perhaps they had a hunch that Lathrop would offer stiff opposition.

That fall one of the gang accompanied a stock train to Kansas City. Somewhere enroute, he tried to walk the decks, when he was loaded with hootch. He slipped and fell between the cars—and there was

one less puncher to worry about.

In January Jim's righthand man, Jack Hare, came to town by himself. He bought out all the lemon extract in Brower's store and proceeded to drink it while sitting on the porch. Brower's was a sort of gathering place for the railroaders and their wives who came over at train time to get their mail. By the time the mail arrived, Tack had drunk himself into a crying jag.

The cowboy decided he was no good nohow, that he'd be better off dead than alive. The rails were in silent agreement at first, for they had wanted no part in starting any gunplay. But Jack kept up his monologue, how he was gonna stagger down into the canvon 'bout a mile and jump off the high steel bridge over the Cimarron River.

Half a dozen rails got interested.

"When you gonna do it?" asked one.

"Right now," he decided, getting to his feet and emptying the last of his lemon extract bottles.

Anything that offered excitement was always welcome. Trailed by half the residents of Cimarron, Jack headed into the canyon. When he reached the high bridge he stopped, took off his hat, rolled his eyes and announced: "Well, here goes."

He walked out on the structure about fifty feet. There he got on his hands and knees and crawled toward the edge, gazing down at the sharp chunks of granite. through which the icy river flowed.

"Well," he repeated loudly, "here

goes."

No one said a word, or tried to argue with him. Then Jack got to his feet unsteadily and faced them.

"Are yuh gonna stand there an' let me jump off?" he wanted to know.

"That's what you came down here for,

wasn't it?" a rail jibed.

"An' you wouldn't care if I did?" quavered Jack, mawkishly.

"Be damned good riddance to a bunch

of rubbish," retorted the other.

"Then I'll disappoint yuh," he announced. Replacing his hat, he staggered back to town followed by his audience and drank up all Brower's *Peruna*.

OUR EASTBOUND PASSENGER train, Number 316, arrived daily in Cimarron around 1:30 p.m. She'd come rolling down the hill followed by her helper engine, whistle blaring, bell clanging, to pull alongside the water tank east of the station and fill her tender. Then she'd move ahead to the depot and stop once more.

Ed Goff, who'd been the hotel porter for years, would be standing near the entrance with a steel triangle hanging on a piece of rope and a steel rod in his other hand. He always looked pretty slick for his uniform was a starched white jacket and immaculately clean apron. His hands were big-knuckled and crooked from years of kitchen work.

As 316 stopped the second time, Ed would strike a summons on his triangle and the hungry passengers would unload, milling toward the dining room. Then the porter would hurry inside to pour coffee, and I never tasted better coffee than they had at the Black Canyon. The train waited twenty minutes, or longer if some

people were slow. Jap Pittser, or Dan-Caldwell, the engineers, could make up the lost time going through the canyon.

One day Pittser let his five-car passenger train drop down the hill like a bucket into a well. He was on the advertised and at peace with the world. At Cerro Summit the conductor had told him that he had picked up orders for 36 dinners. This was a mighty good average.

The engineer rolled through the first deep adobe cut above the spot where the wagon road crossed the railroad, and blew a long blast at the yard limit board. But suddenly his round face puckered in anger. Standing between the rails at the wagon-road crossing was a bow-legged man brandishing two six-guns in a business-like manner. Jap pinched the air till he reduced speed down to a walk, then halted several feet from the puncher.

By this time, the runner recognized Crippled Jim, who from appearance was

drunker than usual.

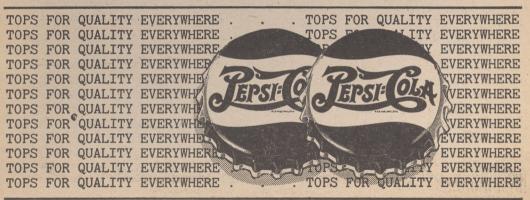
"What's the trouble?" demanded the hefty engineer when he climbed from the cab.

"This is as fur as you're a-goin' until all yore passengers get off an' walk to the depot!" announced Jim.

The depot was several hundred yards down the track.

"By cripes," shouted Jap, "you can't get away with that kind of stuff!"

"I'm goin' to get away with it!" yelled Jim. "Or I'm gonna shoot every damn light off your engine. An' all them shiny buttons off your coat." He tossed the last remark at Conductor Charley Shively.



who had hurried up to see what was wrong.

Arguments proved useless, for Jim became more and more belligerent. At last Charley Shively went back to the coaches where he instructed his brakeman and the porter to put down their step boxes and assist the passengers off the train. The conductor tried to explain tactfully what the trouble was. "Our company will take care of him," he promised the disgruntled hikers

Soon a procession started toward the hotel, women in high-heeled shoes and long skirts hobbling uneasily down the uneven tracks. And although many men cursed and muttered angrily, no one seemed willing to argue with Jim, who was having the time of his life. As soon as all the passengers had unloaded, Jim allowed Jap to drop down to the water tank and fill his tender. Then the outlaw forked his horse and hit for the wilderness above Cimarron, where he went into hiding until his latest exploit blew over. As usual, the railroad had no luck in having him punished.

So Jim and his gang dealt out misery to Cimarron until 1913. Meanwhile, our roundhouse foreman, a young fellow named Chester Gates, had been appointed Justice of the Peace, as well as deputized an officer of the law. However, none of the playful cowboys knew about this. Cimarron had enjoyed several months of comparative quiet when one August evening two of Jim's gang rode into town. They proceeded to stock up on red-eye and go on a sociable drunk.

A train was coming from the east and Dad was called to help it up the hill. I went over to the roundhouse with Dad while he got his engine ready for the trip. The two cowboys had unrolled their blankets in a cottonwood grove across from the roundhouse near the edge of the river, where they lighted a crackling fire of sagebrush and cottonwood. I wandered across to see what they were doing. About the

time I reached their camp, they noticed the activity over by the roundhouse. Dad had just lighted his markers and his cab lamps and was working toward the oil headlight.

"Hey, Tobe," the curly red-haired guy named Cairnes said, as he removed the bottle from his lips, "there's some lights we might shoot out." He pointed toward those on Dad's engine.

"That's a potent idee," agreed Tobe, a gangling six-foot skeleton. He staggered to his foot

to his feet.

I shoved up beside them. "Just a minute," I butted in, "that's my Dad's engine, and he's workin' around her. Don't do any shootin' over there."

Both of them guffawed. Pulling their six-guns, they headed toward the engine. Dad was working on his sander pipes out on the running board, a flaring oil torch in one hand, hammer in the other. Without warning, Cairnes blasted away at the left blizzard light, and Tobe unlimbered on the headlight, while Dad did one of the slickest disappearing acts I've ever seen. Left with a clear field, the pair of drunks shot out the rest of the lights, broke several cab windows, then returned to their camp where they bedded down.

Early next morning, Gates crossed over to their camp, showed his star, and arrested them. I was one of the interested spectators who crowded into the schoolhouse an hour later.

That morning justice moved swiftly. Both men were fined \$250 and given the alternative of spending six months in the county jail over in Montrose or paying up. They paid up. So ended a long period of shooting up the town of Cimarron.

Only a few years later Crippled Jim had a six-gun argument with one of our stockmen. His death wound up the quarrel. It also brought an end to a gang of so-called glamorous, devil-may-care cow punchers, and gave the railroaders and their families a chance to find their adventure on the iron trail.

What Is the Outlook for the Rutland?



BOOMER TROLLEY crossing bridge into Franklin, Tenn., on Nashville-Franklin Ry. in 1941. No. 104 belonged to Indianapolis & Southeastern until 1932; now operates on Georgia Power Co. lines at Atlanta

THE CURVED-SIDE lightweight interurbans created during the "roaring 'twenties" by the defunct Cincinnati Car Co., frequently excite the curiosity of passengers on the few lines where they are still in use. Accustomed to the flat planes of the usual old-fashioned trolley, they question the utility of the so-called fish-belly design even while

admitting its attractiveness. The general impression is that curved sides had never been used prior to a quarter of a century ago. As a matter of fact, the design dates back to the earliest days of the

trolley industry, and was revived under the pressure of fierce bus competition, to offset the maintenance costs involved in heavy trolleys operating on the lightweight rails of twenty-five years ago.

Among the hundreds of companies taking a beating from early inter-city buses, was the Kentucky Traction and Terminal Co., of Lexington, Ky. Their big, 76,000-pound cars were tearing apart the rails in a desperate effort to maintain the increase to one and one-half hours in scheduled headways on their lines to Frankfort, Georgetown, Paris and Nicholasville.

Soaring taxes, rail repairs, falling revenues and watered stock menaced the life of the line.

Under the direction of J. P. Page, General Manager, KT&T officials began to investigate then-operating types of lightweight interurban cars with a view to finding a design that would afford maximum efficiency and economy combined

with safety. This meant the elimination of useless interior fixtures. At the same time, riding quality and general attractiveness must not be sacrificed. An anxious committee viewed the new interur-

bans then running on the Cincinnati, Lawrenceburg & Aurora and on the Cincinnati, Milford & Blanchester Traction, and then ranged farther afield to Nashville to investigate the Union Traction cars on the Gallitan line.

Then, directed by Thomas Elliot, Chief Engineer of the nearby Cincinnati Car Co., the Lexington officials went to work on plans for a new type of interurban. Taking the best features from the cars that they had examined, and inventing others that would retain structural strength in spite of the light weight of the planned body,

Conducted by

STEPHEN D. MAGUIRE



these men designed the first of a line of 402 city and interurban cars.

All dead weight was eliminated in these 25,000-pounders, the lightest interurbans ever built by Cincinnati. Narrowed where space was not needed and extended in width wherever functional requirements made it necessary, the curved sides of the lower portion of the car body were a natural development of efficiency ideas. The reverse curve in the side plates provided a girder strength estimated as much greater than that provided by the same weight of steel in a flat, vertical position. Another advantage was the increased tendency of the sides to maintain their original contour against outside pressure. Side plates were riveted at the bottom to angle irons, angle-down from the sills to which cross members of the underframe were secured.

Following tests made on small models, high carbon steel 16 gage 45 was adopted as best suited to the construction of these cars. Aluminum was used wherever possible, as a further aid to keeping down weight. The separately constructed roof was supported on two pairs of vertical posts. Four 25-h.p. motors attached to the light body provided exceptionally fast acceleration; an average speed of 20

CINCINNATI, built for exhibition at AERA Convention in 1926 shows plush in view of roomy interior above. Below: exterior displays symmetrical lines and distinquishing open-end windows. Right: Profile shot of her truck—super-deluxe as the body



m.p.h. was easily maintained in interurban service.

The first cars made from the KT&T-Cincinnati plans, a fleet of ten, were delivered to KT&T and placed in use on February 11, 1922. In less than one month after the cars were introduced, the competing bus lines were forced to suspend service due to lack of patronage!

Following the success of the KT&T trolleys, orders flooded the Cincinnati Car Co., most of them from lines near Cincinnati, where the results of operation on the KT&T had been observed. Many features of KT&T cars had been patented and could not be obtained by other car builders. Making use of the basic KT&T-Cincinnati plans, the Cincinnati Car Co. modified the design for each order to conform with the type of service desired.

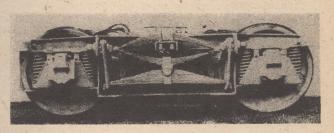
Thus, although similar designs were used in suburban and in city cars, there were variations to suit individual speci-

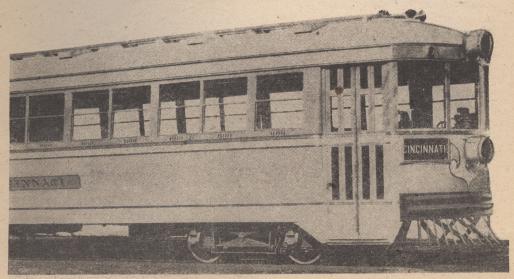
fications. Length of cars varied from thirty-seven to forty-six feet; height from ten to nearly eleven feet; and width from eight to approximately nine feet. Weight oscillated between 25,100 and 40,000 pounds.

In 1923 a single-truck city

type was evolved, retaining the curved sides and general exterior design, but having a length of only twenty-six feet, with seating capacity for twenty-six passengers. Almost seventy of these little cars were built in the years between 1923 and 1925. Most of the interurbans were single units, but the CNS&M and the Georgia Power Co. received MU equipment. Freight motors were designed along the same general lines as the passenger cars for KT&T and GG&W. An especially interesting self-powered unit was built for Deering Southwest Railroad. This was a direct-drive car with its International Harvester motor resting partly on the body and partly on the front truck.

IMPROVEMENTS in body design made over the years, produced several cars of fine, symmetric line. The Cincinnati, built for the AERA Convention of 1926, was notable as the only car of the entire group which did not have the small





circular end windows. Later sold to the I&SE, this car ran out of Indianapolis Traction Terminal for several years after 1926.

The 1929-'30 depression forced the Cincinnati Car Co. to close its shops. With the exception of a few involved in serious collisions, the last dozen or so interurbans produced by the company are still operating today.

The Shaker Heights R. T. and the Georgia Power Company own the old I&SE cars; Georgia Power has the Nashville-Franklin cars; and Lehigh Valley Transit runs the Dayton & Troy light-

weights.

Perhaps the Cincinnati Car Co didn't go in for high-powered advertising, or perhaps the performance of these cars has to be witnessed for their efficiency and beauty to be realized. In any event, except for four cars sold second-hand to Northeastern Oklahoma Ry., not one of them ever went across the Mississippi River. And, except for Birmingham, Ala., and Atlanta, Ga., none ventured farther into the south than Tennessee. Cincinnati was the central point of the very localized area in which the cars were sold, through the states bordering Ohio boast curved-side cars on most interurban lines.

Throughout this area, the old fish-bellied interurbans and city cars still carry on, many under their second owner, while a few real "boomer" cars operate under their third management. Even today, their appearance is up-to-date and their performance highly satisfactory, a credit to the two companies which brought them into existence.

Nor is the day of the curved side car ending, as one might think. The *Chicago Limited*, super-deluxe interurban, as well as the Chicago, Aurora & Elgin's new No. 453, built by the St. Louis Car Co., boast curved sides of the Cincinnati Car Co. type. And on the Lehigh Valley Transit Co.'s Easton route, individual-seat cars may be seen whose white center stripe marks the bulge which spells added security in the resistance of the curved side to pressure.

LIST OF CINCINNATI

LIST OF CINCI	IIIAIII
Built For	Car Nos.
1922	
Kentucky Tr. & Term. Co	300-311
Toledo & Western RR.*	21-23
Portsmouth St. RR. & Lt.*	500-505
Interstate P.S.	251-255
Dayton, Sprg. & Xenia Sou.*	115 & 117
Interstate P.S. Dayton, Sprg. & Xenia Sou.*. City Ry. Co., Dayton, O.	602-742
Deering Southwestern RR	82
1923	
Northampton Transit Co.*	23-32
Chicago, N. S. & M.*	510-511
Chicago, N. S. & M.*	2400-2474
Dayton, Sprg. & Xenia Sou.*	500-503 150-156
Dayton, Sprg. & Xenia Sou.* Kentucky Trac. & Term. Co.*	200-226
Maumee Valley Trac.	100-130
Monongahela West Penn	316-332
City Ry. Co., Dayton, O	802-892
Northampton Transit Co	34 & 36
Cincinnati, G. & P. RR.*	504-505
Cleveland, Southwestern*	207-218
Knoxville Pwr. & Lt. Co. Knoxville Pwr. & Lt. Co.* Conestoga Traction Co.	351-357
Conestors Traction Co.	401–407 65–69
Ohio River Ry. & Pwr.*	21-27
	200 200
Wheeling Traction Co	631-651
Monongahela West Penn.*	30-32
Princeton Power Co.	115-120
Toledo & Indiana RR. Kentucky Trac. & Term. Co.*	100-130
Buffalo & Erie Ry.*	28-29 50-63
1925	00-00
Portsmouth Public Service*	506-508
Knoxville Pwr. & Lt. Co.*	408-423
Dayton, Sprg. & Xenia Sou	125
Can. Nat'l Ry. for NSTC&T	300-311
Cannois Dr. & Dr. Co	480-489
Georgia Ry. & Pwr. Co Stark Electric RR	41-48
The state of the s	Cincinnati
1022	
1927 Dayton & Xenia Ry.*	127
1928	
Knoxville Pwr. & Lt.	361-372
Stark Electric RR	38-40 200-245
indianapous & Southeastern	200-240
Beech Grove Traction Co.*	503
1929 Kantucky Trac & Torra Co *	311
Kentucky Trac. & Term. Co.* Nashville-Franklin Ry.	101-102
Dayton & Troy El. Ry	201-204
Indianapolis & Southeastern	250-260
Monongahela West Penn.* West Penn Rys.*	401-403 831-842
*Scrapped.	001-012

CAR CO. CURVED-SIDE LIGHTWEIGHT CARS

CAR CO.	CUKVED	-21DE	EIGHT CAKS	
Type	Weight	Cap.	Length	Notes
SE Int.	25,180	44	40'3"	Several sold to Clevel'd. Int. RR. in 1936.
DE Int. SE City	27,400 25,660	43 50	40′2″ 42′11″	
SE Sub'n. SE City	25,460 25,800	48 51	40'2" 41'11"	Acquired by Home Transit, Inc. by merger 253 and 255 converted into DE cars.
SE City SE Int.	25,594 20,900	51 40	41'11" 39'6"	Experimental self-powered car.
DE Int.	30,600	48	44'8"	Sold to No. E. Okla. Ry. and Stark Elec.
DE Int.	40,380	51	47'2"	
SE City	30,450	46	42'8"	Originally M.U. cars. Changed to single units
SE Int.	25,400 28,280	47 46	39'8" 44'5"	
SE ST City	16,600	28	26'2"	
SE Int.	26,000	49	39'8" 42'2"	Returned to Cinn. Car Co. on abandonment of line. 100–125 became Cinn. St. Ry.
DE City SE City	30,090 25,897	51	42'6"	
DE Int. DE ST City	30,400	48	44′8″	Sold to No. E. Okla. Ry. and Stark Elec. Sample car for AERA Convention.
SE Int.	25,700	47	39'8"	- Sold to Beech Grove Tr.
SE Int.	33,900	50	46'3"	Several sold to Dayton & Western. Used until abandonment.
SE City SE ST City	27,210 16,800	52 29	42'2" 26'2"	
DE Int.	32,040	48	43'6"	
DE ST City	17,400	24	26'2"	Sold to Ky. T. & T. Co. Used in Lexington, Ky.
DE City	28,952	44	42′6″	Several in use on Cooperative Transit lines, Wheeling, W. Va.
DE ST City	18,700	28	28'8" 37'2"	The second of the second of the second of the
DE Int. SE Int.	28,000 31,600	40 45	43'2"	Sold to Georgia Pwr. Co.
DE ST City	17,400	24	26'2"	
SE Int.	36,940	41	44'2"	
SE City	26,800	55	42'11" 28'8"	
DE ST City SE Int.	20,900	28 51	41'11"	Bought to replace wrecked car.
DE City		44	42'6"	Sold and shipped in sections to avoid Canadian import duties.
SE Int.	38,000	51	44'6"	M-U interurbans.
SE Int.	32,800	52	46'3"	Sold to Birmingham Elec. Co. for city service, 1939.
SE Int.	40,800	39	44′2″	Sample car for AERA Convention. Sold to I&SE.
SE Int.		51	41'11"	
DE City	30,700	54	42'2"	Gold to Dimmingham Flor
SE Int.	33,880 39,950	52 38	46′3″ 45′2″	Sold to Birmingham Elec. Sold to Inter City R.T.
SE Int.	30,500	49	39′8″	Never delivered; BGT defaulted.
SE Int.	32,100	44	40'3"	Sold to Commin Pour Co
SE Int.	39,000 40,000	45 48	44'2" 45'2"	Sold to Georgia Pwr. Co. Sold to Lehigh Valley Transit Co.
SE Int.	38,000	40 -	45'2"	Sold to Inter City R.T.; later to Shaker Hts. R.T.
DE Int.				
DE Int.	******	1100		Tiot compiled by Sol Kowkeen

List compiled by Sol Korkess

CARBARN COMMENT



Steve Maguire

INCOGNITO. The other day your Electric Lines editor was riding the Youngstown & Southern. On the outskirts of Youngstown, O., as we passed another car going in the opposite direction, our motorman stopped and motioned for the other car to stop also. Expecting to hear something of vital im-

portance on juice-line operation, I bent an ear to the head end. The following dialog took place:

Motorman on my car: "Did you get the latest Railroad Magazine?"

Other motorman: "Yes."

Both nodded. Then their cars got rolling again. I edged up to the front end and shortly found myself in conversation with the motorman. Without giving him any hint of who I was, I asked what part of Railroad Magazine he preferred.

In reply he opened his copy to the *Electric Lines* pages, saying: "You may not believe it, but I consider this section the best part of the book." He added that most of the Y&S men read this magazine for the same

The question arises: Does this unprejudiced interview represent a cross-section of opinion among juice-line employes of the U. S. and Canada?

BAD NEWS. Capital Transportation Co., which operates the streetcar lines of Little Rock, expects to replace all cars with trolley buses as soon as delivery can be made, we learn from E. P. Redfern, 2211 W. 17th, Little Rock, Ark. The 45 streetcars now in operation will be replaced by 29 trolley buses and 10 gas buses as part of a \$1,000,000 "improvement" program.

Meanwhile, Oklahoma Rys., recently purchased by gasoline and bus interests, has wasted no time in trying to sabotage its interurban lines to Guthrie and El Reno. As reported to us by James Corrigan, 2605 N.W. 14th St., Oklahoma City, Okla., the company's attorney stated, "One of our principal contentions is that electric interurbans are obsolete and people do not like to ride them."

This argument is silly. We reply that the

kind of service given on any line can never be any better than that which the company is willing to offer its patrons. Either the lawyer is greatly misinformed or else the company has not made a *bona fide* effort to provide satisfactory service.

Fortunately for the satisfied riders of these lines, the Corporation Commission anticipates a great number of objections to this

petroleum-bus outfit's schemes.

Turning to the Midwest, we learn that the Aurora, Elgin & Fox River Electric, which operates a freight line at Elgin, Ill., using two juice hogs—the sole remnant of a long interurban line—expects to substitute two Diesel locomotives for the electrics when they can be obtained. The news comes from Wallace Smith Jr., 9930 South Winchester Ave., Chicago 43.

PRESIDENT'S SPECIAL. William Rigney's account of the way Presidents Mc-Kinley and Taft traveled over the lines of the present Key System (March issue) states that Taft's ride to the Key Route Inn was "the only time a Pullman consist was ever seen in the heart of Oakland, Calif." This statement is challenged by Gilbert H. Kneiss, 18 Forest Lane, Berkeley 8, Calif., who writes:

"At least one other time was in 1918 when the Liberty Loan Special, loaded with movie stars, backed into Oakland with its observation platform leading up the Webster Street electric line of the Southern Pacific and parked on an unused piece of track on Webster Street south of 14th, adjoining the block used by the SP interurban station. After band music, pep talks by the stars, and bond sales by Mary Pickford, the train pulled out."

HERO of the Chicago, North Shore & Milwaukee was Herbert A. Capelle, a towerman in South Milwaukee, Wis. Mr. Capelle collapsed recently from internal hemorrhage while on duty and died shortly afterward; but before losing consciousness he managed to set an automatic block signal that stopped all trains passing his tower, and thus averted one or more wrecks. The news comes from Frank Van Duzer, 1017 Porter St., Waukegan, Ill.

MULE CARS of old New Orleans are remembered well by Robert L. Nicholson, 411 Gladstone Blvd., Kansas City 1, Mo.

Commenting on Freeman Hubbard's article, "Horse Car Days" (Feb. issue), he writes:

"Each was drawn by a single mule. You entered by a little step at the rear of the car, went directly to the front, and then put your fare in the box. It was pathetic to watch the mule's effort to start a heavily loaded car; but after it got moving, the job was not so hard. Planking between the rails was splintery; it was not unusual for pedestrians to suffer foot injuries as a result.

"I also recall the St. Paul, Minn., cars, each drawn by two horses; the one-horse vehicles in Strong City, Kan.: the line at Beatrice, Neb., where two mules pulled the car uphill from the depot to the center of town, at which place the mules were unhitched, returning to the depot by gravity; the horse cars in Chicago; and New York's Bleecker Street route, which abandoned horse-car service July 26, 1917."

Mr. Nicholson says he'd like to see an article on cable cars, not those still running in San Francisco, about which an article appeared in our November '45 issue, but cable cars in general—in Philadelphia, Kansas City, St. Paul, etc.

TWO CANADIAN LINES are due for early abandonment. Hull Electric Co., which operates near Ottawa, is replacing streetcars with buses, allegedly as the result of a public poll taken last fall, we are advised by J. M. Leclerc, 25 Bigaouette, Quebec, P.Q., Canada. And Levis Tramways, operating in Levis, on the south shore of the St. Lawrence just opposite Quebec City, has been asked by City Council to substitute buses.

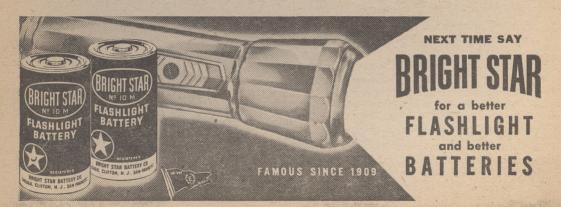
"I wonder why?" queries Mr. Leclerc.
"Levis streetcars gave excellent service, es-

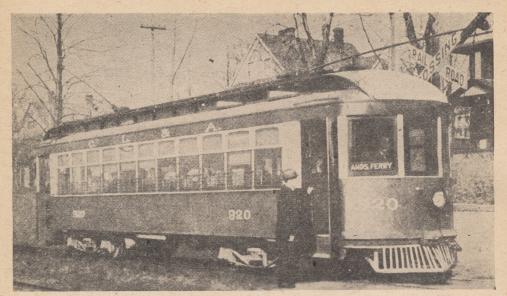
pecially in winter when our heavy snowstorms made it almost impossible for automobiles to climb the hilly city streets.

"The same story holds true in Quebec, where the company wants to replace street-cars with buses. I have first-hand information about this, because my father has been a streetcar motorman for 35 years. Not long ago I learned that the company had begun laying off machinists and car workers, as they plan to retain only the interurban line to St. Anne. I wish the company would try out one of Montreal's PCC cars before they prematurely change to buses."

W7ORLD'S most famous duck, a wild mallard, laid her eggs and hatched them last vear on Milwaukee's Wisconsin Avenue lift bridge, used constantly by streetcars, pedestrians, and highway traffic. How she did it in plain view of three million people without being seriously disturbed, and what happened to the duck family, is told in a new book, The Story of "Gertie," written by two bright reporters: 40 pages, 71/x8 inches. with 19 full-page photos and a score of line drawings, \$1, Rinehart & Co., Inc., New York and Toronto. We recommend this delightful little book, not for its slight streetcar background but because of its clever handling of a unique situation. We believe it appeals to adults as well as children-just as Gertie herself did for 37 days on what is described as "the busiest spot in all Wisconsin."

44HOW MANY trolley lines had turntables to move their cars in the opposite direction, instead of the more conventional loop or wye?" asks Lt. David Waddington, Camp Beale, Calif. "I can cite three, two





PREDECESSOR of "fish-belly" design, Cincinnati, Lawrenceburg & Aurora's No. 920 was built by Cincinnati Car Co. Halted opposite a train crossing, she takes on a passenger for Ands Ferry. Note gridiron window guards

of them still in use: the WCFRN, a former steam road; the San Francisco cablecar lines, and the Rhode Island Company's Buttonwoods line, a one-time steam line now abandoned. Who knows of others?"

FREE RIDES. During a recent transit strike in Shanghai, China, strikers and passengers alike were allowed to ride street-cars without paying fare. In fact, the operators even invited people to travel free. Walt Thayer, Box 1588, Chelan, Wash., comments: "I wonder how long such a strike would last in U. S. or Canada?"

LOUISVILLE'S transportation system is in a bad way, according to Sgt. John Fielder, 4638 S. First St., Louisville, Ky., who recently returned home. He says:

"The chuckle-headed people who griped against streetcars, wanting them replaced by buses, now wish they had the trolleys back. Every day I read letters in the newspapers from readers complaining about our poor bus service."

PITTSBURG COUNTY RY., one of America's least known and seldom visited interurbans, has been sold by the Public Utility Co. of Oklahoma to a private corporation under a recent SEC order requiring the pow-

er company to give up its railway. This 16-mile line has infrequent passenger service with three cars, and owns two freight motors. A rare feature is that the cars were originally built for two-man operation, with doors only at the rear right ends; and when the one-man system was installed years ago, instead of a door being built at each right front corner, the passengers were taught to board from the left side in European fashion. Just how long the line will last is anybody's guess.

REPRINTED by demand in *Interurban News Letter*, August 1945, is the history of New Haven's electrification first published in NYNH&H's magazine, *Along the Line*. Many other features appear in the INL monthly, and cost of a year's subscription is only \$1.50. Those interested in a subscription or in obtaining single copies should write to 1414 S. Westmoreland Ave., Los Angeles 6, Calif.

PHILADELPHIA'S unique and interesting Fairmount Park Transit, an independent concern operating in the world's largest city park, is doomed to abandonment —maybe even before you read these words.

As spring comes to the woodland with its buds and dogwood blossoms, its burst of new life, endless winter settles down upon the rails. Instead of gay festivities for their fiftieth birthday this year, to which the company had fondly looked forward, the old line is to be hung, figuratively, with black

The Fairmount Park system will be deeply missed. It is the last line in North America to run open trolleys in regular service. As such it has achieved nation-wide fame. Service is year-'round. The summer cars are used in warm weather, and closed ones the rest of the time

FPT offers a delightful scenic ride of eight miles. You swish through shady dells and rattle under bridges. You gaze upon stretches of woodland and broad sloping lawns where sheep are grazing. You view old historic monuments. You admire gardens and brooks, Colonial mansions, and museums dating back to the Philadelphia Centennial fete of 1876. You see the main line of that great anthracite carrier, the Reading. Biggest thrill of the trip is the magnificent vista that opens up for miles as you cross a high bridge over the winding Schuylkill River just before you reach Strawberry Mansion, the northeastern terminal.

Millions of passengers—visitors from out of town as well as city residents—have enjoyed this ride. Some use FPT cars to reach certain destinations, such as Lake Chamounix, which recently had boating, or the quiet Methodist Episcopal Home for the Aged, where tottering grayheads of both sexes dream their lives away on the edge of Fairmount Park. Others ride the cars in large numbers to the popular amusement resort of Woodside Park, conducted by FPT. Countless throngs patronize the line for pure enjoyment of the ride itself. Especially on warm summer evenings.

There is no better place in Philadelphia for a fellow of modest means to take his girl friend on a hot June night than aboard an open FPT car, for a run through the fairyland of lacey shadows, dark overhanging foliage, and evening breezes. But these simple pleasures, alas! will be no more.

Until a few years ago, two other lines—those in Savannah, Ga., and New Haven, Conn.—also operated open cars in regular service; but both discontinued them before the attack on Pearl Harbor. FPT, however, has run open trolleys every summer since 1896. So popular is this service that on week ends the company is obliged to use the cars as trains, each motor pulling an open trailer behind it.

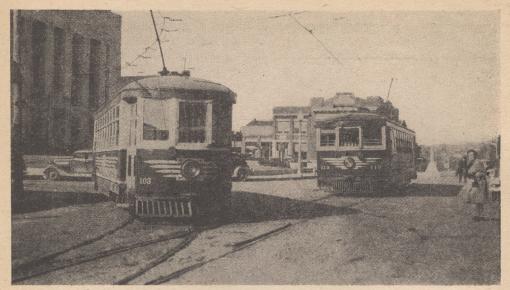
The Fairmount Park line is located entirely within the limits of the park it is named for. Its tracks wind along two routes, somewhat in the shape of a double circle. At no point is there any street operation or road crossing. The car barn is surrounded by a wooded section appropriately called Greenland, where an odd type of switch actually lowers a rail when cars go up or down a slight grade to the barn.

Philadelphia Transportation Company, which operates the Quaker City's streetcar, bus, subway and el routes, refuses to be bothered with the park line, although PTC carries thousands of passengers to and from the park on pleasant summer days. The big system refuses to take over, rehabilitate, and carry on the eight-mile trolley service.

The desperate FPT, resigned to fate and applying for permission to abandon its entire line, offers to let PTC run "stink buggies" over its private right-of-way through the park, with terminals near those of the present FPT.







SWINGING into the curve just ahead of 119, Tri City Traction's 103 was first light-weight built by Cincinnati Car Co. No. 119 is type of standard lightweight interurban

In its petition, the unhappy park company sets forth the fact that it has been "in the red" for years and estimates that rehabilitation would cost \$625,000. Its present equipment has been in continuous use for half a century. Just why some compromise has not been reached or some deal consummated by public-spirited citizens in order to save the line, is not clear to us.

It will be a sad day when Fairmount Park Transit makes its graveyard run.

HARRY K. McCLINTOCK, brakeman and boomer switchman, 533 39th St., San Pedro, Calif., tells us that around 40 years ago a lot of oldtime boomers from steam roads used to run streetcars now and then. He himself was one of them. McClintock, known as "Haywire Mac," writes:

"Usually they were hoggers who craved to run anything that didn't wear harness, like a plow mule, or have handles, like a wheelbarrow. Some were steam-railroad conductors who had held passenger runs and figured on getting a reasonable percentage of the nickels for their own use. Since many had been fired by trunk lines for that little failing, there were plenty of street railway lines that wouldn't hire a steam line man if they could prove it on him.

"During the winter of 1904 I got a notion to try the streetcar racket. The Cleveland traction lines were running ads in the papers appealing for motormen and conductors. And the steam roads weren't hiring. Before rushing into the breach and easing the critical manpower shortage on the electric lines, I thought it might be wise to invest a few nickels and look the job over. I regard those nickels as about the smartest money I ever spent.

"I made a round trip to Euclid Beach. Then I journeyed to the West Side, crossing the Superior Street viaduct. The cars had no vestibules. Motormen just stood out and took the sun, rain, snow and sleet. There was a dashboard, reaching as high as the belt buckle, and that was all. Cars were braked by hand. There was a brass crank instead of a brake wheel and it was almost constantly in use.

"There was a seat, running the full length of the car, on either side; in the center of one of them was a replica of the stove pictured in February *Railroad Magazine*, page 15. It burned coke and was tended by the conductor. If you sat close to it, your clothes started to smoke. If you didn't, you froze.

"When we headed onto the viaduct on this particular trip the motorman put his controller into the 'slow' notch and came inside to thaw out. A mixture of snow and sleet was descending. Lake Erie zephyrs were trying to plaster it onto the buildings, the teamsters, and the motormen, instead of letting it hit the ground. That poor half-

4000 PCC Cars

MORE THAN four thousand fine modern PCC cars are either in service or onorder in the United States and Canada, according to *Trolley Sparks*, the Chicago Electric Railroaders' Ass'n monthly bulletin. Here is the score:

	In	On
	Operation	Order
Baltimore		
Boston		100
Brooklyn	100	
Chicago (CSL)	83	600
Chicago (CRT)		4
Cincinnati	28	
Cleveland		50
Dallas	25	
Detroit		80
Johnstown		17
Kansas City	24	75
Los Angeles (LATL)	125	
Los Angeles (PE)	30	
Louisville		25
Minneapolis		90
Montreal	18	. 20
Philadelphia	260	100
Pittsburgh	465	101
San Diego	28	
San Francisco	5	10
St. Louis	200	100
Toronto	290	20
Vancouver	21	15
Washington		53
Total	2,584	1,460

frozen juice-jerker looked like a snowman when he waddled through the front door. He stood over the red-hot stove for a minute or two. Great hunks of ice started dropping to the floor. The conductor barged in from the rear platform, damn near as snowy as his mate.

"'This is what I like about the Superior

Street run,' said the motorman, trying to rub some life into his stiffened fingers. 'A feller gets a chance to soak up a little heat on the viaduct.'

"Aren't you afraid you'll hit a dray?' I queried.

"'The hell with 'em!' he snorted. 'Most of the teamies have sense enough to stay off the car tracks on the viaduct. We ain't movin' fast enough to do damage, anyhow.'

"Right then I lost interest in street-carring as a career. But I did find out that an applicant had to bounce fifteen bucks for a uniform before going to work. And the pay was 17½ cents per hour. Not much wonder that the conductors tried to augment it a bit.

"There were no more bitterly anti-union employers in the country than the traction magnates. Every city can point to a long succession of streetcar strikes. Busting transit walkouts became a highly specialized branch of the 'private detective' racket. Some outfits, headquartered in Chicago, did nothing else. Their gangs of plug-uglies were kept on a sort of maintenance pay of one dollar per day between strikes. They paved the way for the organized mobsters that almost took over in the Windy City in later years.

"I never saw a streetcar strike in which public sentiment was not overwhelmingly in favor of the men. And I don't believe I ever saw the men win one. Which may account for the fact that there are relatively few mourners when the average streetcar line is abandoned. I know of no business that has been as thoroughly mismanaged, right from scratch, as the street railway lines of the good old U. S. A."

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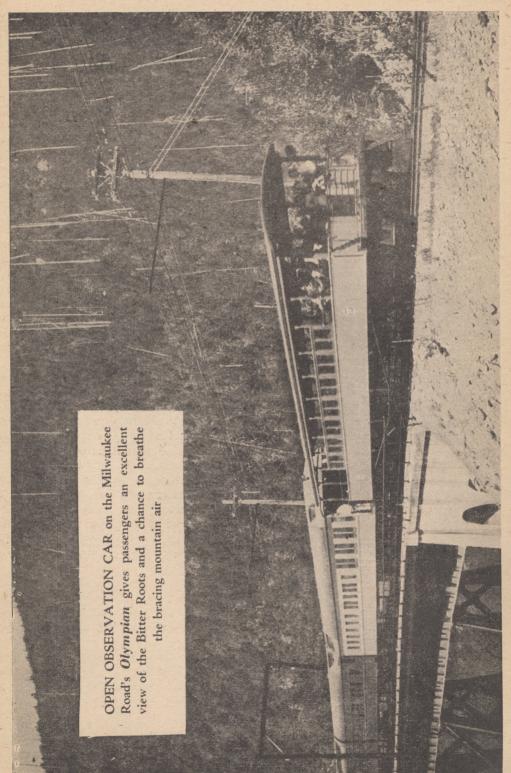
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Wire Tests on the Boomer Trail

By JOHN F. ARIZA

IRING out at the Santa Fe head-quarters in Chicago's Railway Exchange back in the early 1900s, I received the shortest wire test of my entire life; and for a boomer of long standing, that's a record.

"Let's see if you can telegraph?" said the clerk, who was putting me through my paces. He wrote just two words: "What's this?"

At first I was so surprised I only laughed. Then I told him what he had written.

"Okay," he grinned in return, but I knew there was a story coming on why he had made it so brief.

"We didn't always do it," the clerk explained, "we used to take for granted that every man who came in was an operator. But one day a fellow came in who aroused my suspicions. He wrote a terrible scrawl, had short stubby, calloused hands, and didn't have the railroad lingo. So I took him into the office and sat him at the table.

"I'll give you a wire test,' I said pleasantly. 'It's just a formality, but we don't like to hand a man 2,000 miles of free transportation without knowing whether or not he can telegraph.'

"The man's face turned scarlet, and his eyes shifted about the room as though looking for a quick exit.

"'Copy this,' I said, stepping to the switchboard about two feet away. With

that he ripped out a disgusted oath.

"'I can't telegraph, mister,' he replied. 'I'm a bricklayer. I was afraid I couldn't cut 'er after I got up here an' seen I didn't have the kinda chatter youse guys use. It's like dis: I drinked wid so many ops in a joint on Vanburen street, and dey talked so much 'bout what a cinch it was to get a pass out West, I decided to take a crack at it myself. De barkeep told me that all de waiters go to Denver or Frisco wit ol' Santa Fe.'

"'Well you're one who won't ride that

way, mister,' I retorted, and he slunk out of the office as though I'd caught him pinching pennies from a collection plate."

One of the first tests I ever took was off the rails in the Atlanta Western Union, in October 1903, when I blew in from Chicago. The traffic chief, known to all as "Old Man Mac," had me sit in on a wire. After I had copied five messages of the rottenest Morse I'd ever listened to, he came over to my table. I thought I'd been copying regular business from Decatur, and I was angry—being young and very fresh.

"Lord, Mr. Mac," I said, "that was a rotten—!" using an especially offensive term. Instantly I received a very hard kick from the man sitting next to me.

"What in hell's biting you?" I demand-

ed angrily, glaring at him.

I looked up to find myself facing a redfaced, embarrassed traffic chief, and an equally ruddy operator. Then I went on to describe in abusive detail the rotten things "that damned lid" (we used "lid" instead of "ham" to describe a poor operator on the commercial wires) had done. I said plenty; and Old Man Mac, a distressed look on his big, flat face, listened.

Not until he had walked away did I learn what was up. Then the guy who had kicked me told me Old Man Mac had been sending to me. The op was convulsed with laughter. When he got control of himself he sent notes around the big room to various pals of his. "Everything you told him he deserved," he assured me. "I ain't heard anything for a long time that tickled me more."

In a short while dozens about the room were laughing, and I was congratulated, slapped on the back, and requested to repeat what I'd said to "that dam ol' scoundrel." Old Man Mac wasn't disliked. He merely represented authority, and they all enjoyed hearing the big guys "taken down

a peg."

ROLLING down from Quebec City one summer, I was heading for St. Albans, Vt., where I intended to hit the Central of Vermont for a job. I changed at Rouse's Point, N. Y., and when I moseyed into the depot, who should be working second trick but one of my old boomer pals. Boy, did we have a reunion! He got another operator, and we put on a session at a nearby hotel that lasted until four the next morning.

When I reached the chief dispatcher's office in St. Albans about ten a.m. I was in bad shape. Had he allowed me to use a typewriter copying messages for my test, I could have gotten away with it. But he wanted to see what kind of train order man I was. I was so nervous and unsteady I couldn't hold a stylus in my fingers.

He looked me over with a twinkle in

his eye.

"Here," he said, handing me four bits.
"Go out and get something to steady your nerves, then come back and we'll see what you can do."

I was so astonished I hardly believed my ears; but I went. Returning in half an hour, my train order copies were satisfactory. Until I got down to Roxbury—where he sent me to work second trick—and talked with the agent, I didn't know that the man who'd befriended me was a dispatcher who was relieving the chief for a few days. Afterwards, comparing notes with another boomer, I learned that this dispatcher had done him the same turn, and then "squared him out" for a feed and a bed.

But while many home guards welcomed the boomers and were glad to put them on the payroll, some were not acceptable in spite of the shortage of workers. Green River, Wyo., had the most shifting population of any western town in the days when Dave Kase was chief dispatcher for the Union Pacific there. High in the Rockies, Green River was too bleak to keep any boomer long. Not a week passed that the general office in Omaha didn't ship an operator, and the Lord knows how many brakemen and switchmen, hoping some would remain.

One day a fish-eyed boomer, with a pasty face and half-starved look a man acquires after having missed about 975 of his last 1000 meals, unloaded at "GR". Dave eyed him with suspicion. He figured the man wasn't an operator, but had obtained a pass from a boomer and was trying to put something over. So right away he sat him down at the wire for a test.

"I'm all shot today," the fellow said as he let Dave's sending "go into the air" without writing down a word. "I can't

copy nothin'."

"Vot iss de matter?" Dave asked in his thick Wisconsin German

No answer.

"Ain'd you an operator?"

"Sure. I've worked at it for ten years."
"If it's a dringk you need, go oud und

get it. Den come bagk und ve see what you can do," he said encouragingly.

The fellow never moved.

Roy Eberhart, who'd worked years for the Postal in Chicago, but quit to settle down in Green River, stooped over and whispered to Dave: "Hophead."

"Ho, ho!" said Dave. "Ve get plenty of drungks here, but I draw de line on hopheads, feller. You better beat it."

The fellow disappeared, and like most of Green River's population, never showed up again.

IN OCTOBER 1941, traveling southward with the wild geese and swans from Canada, I hit the Northern Pacific office in Seattle for a job. They needed a relay man right there, so Manager McDonald put me on the receiving side of the St. Paul duplex to see if I could deliver. A gilt-edged fellow named Olson was on the sending side in St. Paul. Fast, but plain as print, he was easy to copy.

Dell Sweitzer was sitting alongside of me sending to St. Paul. "Hell, you're all right!" he remarked after a bit.

But Old Man McDonald never came around to the wire. Instead, he sat at his desk far up the long room. Message after message I copied, but still no Mac. It was 1:45 p.m.—two and a half hours after I'd sat down for a "test"—before he got

near enough to me to attract his attention.

"Mr. McDonald," I called, "am I on

duty or still getting a test?"

His face turned very red. "Gee, I forgot all about you," he said. "Guess you'd better go out and get something to eat, and then go on up to see the doctor."

One of the boys on either Missoula or the Livingston wire, chuckled. "Old Mac's bulling you," he whispered across the table. "He cut in and knew after the second message you could 'deliver.' But he's short-handed and needed a man to cover 'NP' for a few hours."

Well, I have nothing against Mr. Mc-Donald for that. He proved he was not only a square man, but within a very few days he did me an exceptional favor. No, it wasn't staking me to money. I had

plenty then.

I had one of my strangest 'wire' tests in a big bank in Grand Rapids, Mich., the week of D-day, 1944. I wanted to cash a check on a Southern bank, and went to one of the officials to have it okaved.

"I'm a telegraph operator," I explained.
"I just left the Atlantic Coast Line at Florence, S. C., to work up here where it's cooler during the summer. There's my union card, and here's my Social Security."

The official, one of the vice-presidents, looked at the endorsement and the card, but never uttered a word. Then he picked up a ruler and using it as a "key"—as every op has sometimes used a ruler, a fork or table knife to fool a non-telegrapher—he wrote, "Are you a ham?"

We both burst out laughing. Then he tapped out: "I was a railroad operator but

never a very good one."

I picked up the ruler and said in Morse: "No, so poor you became vice-president of a big bank."

It was a very pleasant incident. He put through my check, shook hands and wished me the best of luck. Turning, I saw a file of bank patrons behind me waiting to see the official. They were all grinning, but with a decidedly puzzled look.



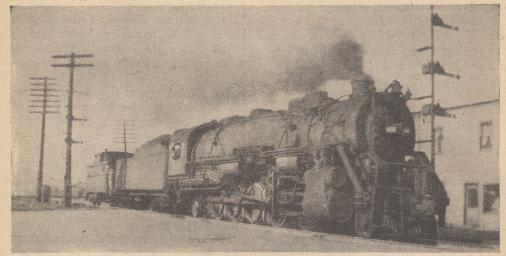


Photo by Bill Allen, 19 Bleecker Pl., Albany, N. Y.

LIGHT HAUL. Boston & Maine Number 3024 at Mechanicville, N. Y., midpoint in the road's western freight-only branch

Railroad Camera Club

TEMS sent to the Switch List and Model ■ Trading Post are published free, in good faith, but without guarantee. Write plainly and keep 'em short. Use a separate sheet or card containing your name and address. Give your first name, not merely the initial.

Because of time needed to edit, print and distribute this magazine, all material should reach the Editor seven weeks before publication date. Redball handling is given to items we get the first week of each month, if accompanied by latest Readers' Choice coupon (clipped from page 145 or home-made).

Due to scarcity of space, we prefer that no reader be listed here oftener than once

in four months.

Use these abbreviations: pix, photos; cond., condition; ea., each; elec., electric; env., envelope; eqpmt., equipment; esp., especially; info., information; n.g., narrow-gage; negs., negatives; p.c., postcard; pref., preferably; tr., train.

And these photo sizes: Size 127—15/8x21/2 inches; Size 117-21/4 x21/4; Size 130-21/8x27/8; Size 118 or 124-31/4x41/4; Size 122 or p.c.— $3x5\frac{1}{2}$; Size 616 same as 116, on thin spool, 2½x4¼; Size 120—2¼x3¼ in.

The term tts, refers to public timetables, uniess preceded by emp., when it means employes' (operating) timetables.

(R) indicates desire to buy, swap or sell back issues of Railroad Magazine or its predecessors, Railroad Man's or Railroad Stories. (Specify condition of each copy.)

(*) indicates juicefan appeal.

Switch List

CHARLES ARNOTT (R), 36 Boustead Ave., Toronto, Ont., will sell Railroad Magazine. Oct. '32 to Nov. '42, exc. Dec. '32; Jan.-Mar., May, June, Sept. '33; Apr., June-Aug. '42. Make offer.

TOM BAXTER, 703 S. Marengo Ave., Pasadena 5, Calif., wants to trade AT&SF, SP, UP size 616 negs. for AT&SF eastern negs. esp. older or scrapped classes; also eastern UP news.

for AT&S' eastern negs. esp. older or scrapped classes; also, eastern UP negs.

(R) R. C. BEERS, 352 Floral Ave., Johnson City, N.Y., offers Railroad Magazines, 10c ea. postpaid; Feb., Apr., July, Oct., Dec. '35; Jan., Feb., Apr., May, Aug., Sept.-Dec. '36; '37, '38 compl.; '39 exc. May; '40 exc. Oct.-Dec.; excell. cond. KEN L. BENNETT, 4156 E. Triggs St., Los Angeles 23, Calif., wants to find the address of Bernard "Buddy".

Breen, son of Barney Breen, 300 Blk., E. Case or Cass St., St. Paul, Minn.

St., St. Paul, Minn. (*)R. W. BIERMANN, 4338 20th St., San Francisco, Calif., offers SF Mun. Ry.'s. Trolley Topics for stamp. DON BLANCK, 3836 Hollywood Ave., Hollywood, Ill.,

DON BLANCK, 3836 Hollywood Ave., Hollywood, Ill., will sell large stock pub. tts. 5c ea. postpaid; mail one free with ea. ord. over 25c. List for stamp. EUGENE R. BOCK, Box 713, Anderson, Ind., wants pix and info. on all rr. covered timber bridges. RICHARD F. BOONE, 227 E. 69th St., Los Angeles, Calif., wants Trains, Dec. '40; Jan., May-Aug., Oct.-Dec. '41; March, June, July '42. Will trade Feb.-June, Oct. '45 for above. Write first.

(*) JAMES BOUICK, 1779 17th Ave., San Francisco 22, Calif., trades San Francisco elec. car, bus, cable transfers for those of other cities.

(R*) JOS. S. BREARLEY, 301 S. Meadow St., Ithaca, N.Y., will sell or swap Railroad Magazine, Jan.-July, Sept., Dec. '40; '41 exc. Feb.; '42 exc. June; '43; Jan.-July '44, good cond; wants old.n.g., N.Y. state elec. pix. ROBT. F. BROWN, 706 N. Brandywine Ave., Schenec-

Railroad Camera Club

tady, N.Y., will trade any bus tickets, tokens, transfers.

L. WILEY COOPER, 1935 Crocker St., Des Moines, Ia., will swap Johnson's The Steam Locomotive, 1st ed., July '42 Trains, English Railway mags. and books for Trains, Sept., Mar. '45; May '44; Jan., Dec. '42; Dec. '41, any issues previous to July '41.

(R) WALTER DAWSON, 2936-A N. 22nd St., Milwaukee 6, Wis., will sell 9 copies Railroadman's Magazine, '10 and '11.

H. F. GALLAGHER, 83 Ocean Ave., Jersey City 5, N.J., wants info. and pix of steam and elec. roads which ran into Washington, D.C., and Cincinnati in 1889; will

ran into Washington, D.C., and Cincinnati in 1889; will swap copies of Trains.

GUNNER J. F. GAMAGE, 14988923 4 Wing (Staff) HBTD, Nasik Road Camp, Deolali, India, wants to correspond with American fans.

LON GEDDES, 4507 N. Racine Ave., Chicago, Ill., will sell 50 p.c. pix and 10 negs, size 116 of CMStP&P, DSS&A, Copper Rge., C&H, etc., for \$3.50.

(R) P. GILHAM, 519 Charemont Ave., West Chicago, Ill., will trade 150 copies of Railroad Magazine from 1930; Railway Eqpmt. Register, 1929 '36, '38, '43, '45, 'Ry. Freight Connections & Car Interchange Register '17; ICC reports; other material. Write first.

C. T. GOODWIN, 63 Atheldene Rd., Walton, Liverpool 4, England, wants pix of Amer. locos and rolling stock; will swap Brit. eng. pix.

(*) WM. R. GORDON, 1404 Blossom Rd., Rochester, Y.Y., will sell or trade size 416 trolley and rr. negs. and

pool 4, England, wants pix of Amer. locos and rolling stock; will swap Brit. eng. pix.

(*) WM. R. GORDON, 1404 Blossom Rd., Rochester, N.Y., will sell or trade size 116 trolley and rr. negs. and pix. Wants tts.

HARVEY GOSSEN, 2872 Clarendon Ave., Huntington Park, Calif., wants to hear from fans with literature and pix on steam farm tractors, esp. Reeves double-cylinder, Advance-Riemly, etc.; also old gas tractors.

(R) HOWARD W. GRIBBIN, 133 Providence Ave., South Portland, Me., will sell Railroad Magazine, '33, '34, '35, '36 complete; '37, exc. May; '33 exc. Apr., Sept., '39, '40, '41, comp.; also Dec. '29; Nov.-Dec. '32; Jan.-Sept. '42; Feb. '43; all good cond.

GRAHAME HARDY, 538 15th St., Oakland 12, Calif., will sell at \$1 ea., 12 for \$10, rare collection of 684 signed annual passes issued by other roads mostly to Colo. Mid. officials prior to 1919, all good cond.

(R) N. F. HARRINGTON, 93-27 213 St., Queens Village, N.Y., will sell Railroad Magazine, Apr., May, Sept., Nov. '38; Apr., May, June, Dec. '39; Jan., Apr., May, Sept., Nov. '38; Apr., May, June, Dec. '39; Jan., Apr., May, Sept. '42; Feb.-Mar. '43; \$3 for lot.

(R) HERBERT HUBER, 1811 S. 17th St., Ft. Smith, Ark., has Railroad Magazine, July. Aug., Oct. '42; Jan. '43; Feb. '46; Loco. Engineers Irl.: BRT Mags.; emp. mags.; Railway Age; temp. tts., rulebooks, etc.

(R*) DONALD E. JACKSON, 1206 W. Bancroft St., Toledo 6, O., wants pix abandoned Ohio elec, lines, any size pix of Cincinnati & Lake Erie frt. interurbans; Railroad Magazine, June, July, Dec. '36.

(*) BILL JERNSTROM, 114 Fremont St., Elkhart, Ind., will sell size 116 or larger steam, Diesel, and trac. pix: steam and elec. wreck pix, some rare: builders' photos. List free. Wants O.G. 1928 thru '32.

(*) E. D. JONES, 639 Osborne Ave., Verdun, Montreal 19, Que., Canada, has size 116 CNR, GTW, CVR, elec. line and wreck pix. List and sample for dime; state which list wanted. All three with samples, 25c.

(R) F. G. KARL, 319 Niagara, Sheboygan, Wis., has Railroad Magazine, Feb. '33 to date, g

data.

(*) HUGH W. LEE, Jr., 5203 Corby St., Omaha 4, Neb., swaps Omaha transfers for U.S. and foreign.
ROBT. A. LeMASSEN, 398 N. Maple Ave., E. Orange 16, N.J., will swap new '41 and '44 Loco. Cycloped'as for Baldwin Mags. he needs.

(*) ARTHUR LLOYD, Jr., 1806 Silverado Tr. Napa, 15 for \$1. List and sample, 10c. Will trade or sell empand pub. tts., juice negs.

CLARENCE R. LEOFFLER, 498 S. 19th St., Newark 3, N.J., wants Jan.-March '41 Trains, good cond.

(*) B. A. LONG, Intermezzo House, 73 Elmwood, Verona, N.J., offers RPO kit of 3 pix (NYC-World's

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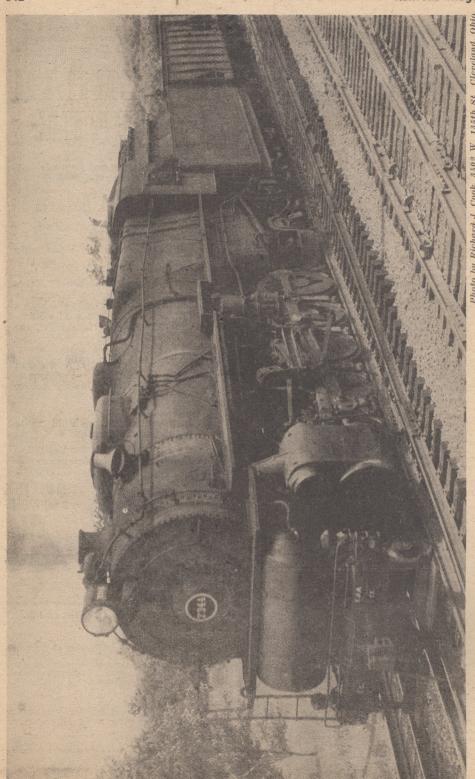
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mail train; RPO trolley list; all 35c, or trades for other
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(*) LEONARD LUCY, 136 Charles, Mishawaka, Ind.,
has size 118 or 124 NYC and CSS&SB pix.

(*) PAUL MERLAND, 2579 Marsh Ave., Norwood
12, O., wants size 616 pix or negs. of interurbans that
once entered Cincinnati, esp. CG&P, C&LE, Cincinnati
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(R) W. J. MILLER, 15219 Regina Ave., Allen Park,
Mich., will sell complete collection loco, and train pix
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(R) HOWARD T. MOULTON, 25 Valley St., Medford, Mass., will sell Railroad Magazines, July, Sept., '33;
Jan., Mar., May, Sept., Nov. '24; Mar., May-July, Nov.
'35; Mar., May, July, Nov. '36; July, Nov. '38; Dec.
'39; \$3 plus post, on 8 lbs. for lot. Write first.
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wants stamped envelopes with corner ads or monograms
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trade for other states, or other material. Swaps lists.

(*) HARRY OSWALD, 519 E. Glendow Way, San
Gabriel, Calif., sells or swaps PE pix, transf., and tts.;
LARY trans., pix; JW&NW and LATL pix. Wants all
size elec. negs; offers booklet, This Is PE.

(*) DOUGLAS PARKER, 17 Birch St., Moncton,
N.B., Camada, will give 4 size 116 loco pix for good
116. 616 negs. of loco or streetear; 5 pix for SP, CV,
T&NO Diesels or articulated size 116 negs., 10 pix for
PRR turbine neg. List and sample Canadian roads,
iew U.S., 116 pix for 10c.

(R) WM, B. PECK, 38 Greenridge Ave., White Plains,
N.Y., offers Railroad Magazine, Apr., Sept., Dec. '33;
Feb., Apr., July, Sept.-Dec. '34; '35 thru '36 complete
exc. Jan. '36. Excell. cond., lot for \$20. Must write first.

JACKSON R. PELLETT, 27 Maple Rd., Franklin,
N.J., wants wreck pix, pref. with cra



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S. B. RISDON, Rte. 5, Box 105, Watsonville, Calif., will sell 12 good 5x7 action shots SP Daylight, taken enroute, \$3 for lot; 30c ea. up to 6. Sample for stamp. (*) DICK RUMBOLZ, 2819 Cedar Ave., Lincoln 2, Neb., has size 116 pix of Lin. Omaha & Kansas City. Wants pix of Lin., Omaha, Lin. & Beatrice Ry., and Valley City St. & Interurban.

JOHN SCHWITZNER, Naval Air Station, Mojave, Calif., wants Santa Fe emp. tts.

Valley City St. & Interurban.

JOHN SCHWITZNER, Naval Air Station, Mojave, Calif., wants Santa Fe emp. tts.

WALD SIEVERS, 251 Miller Ave., Mill Valley, Calif., will sell compiled roster of NWP locos. for \$1.

FLETCHER—H. SWAN, Box 228, South Pasadena, Calif., will buy, sell, or trade AT&SF 116 or 616 size negs.; pix and negs. of other roads. Complete list and sample for 10c.

ARTHUR TERRELL, 38 Martin Terr., Hamped 14, Conn., wants Santa Fe, B&O, C&O, PRR, Rdg., Burlington frt. tr. pix, sizes 124, 177 and 130.

(R*) GEO. D. THOMASON, 7 Alexandra Gardens, Hounslow, Middlesex, England, wants maps, tts., pix and other info. of NY El and subway lines; also back issues of Rairoad Magazine.

DILLON TURNEY, 1071 Teviot Rd., Schenectady 8, N.Y., will buy or trade for bills of lading or other rr. documents having revenue stamps attached, esp. 1865 to 1905; also ad material of that time.

(*) ROBT. E. WALLICH, 1344 Pennsylvania Ave. SE, Washington 3, D.C., will sell photos of Capital Transit, Hagerstown & Frederick, WB&A, BTCo., W&OD, CBRy., M&Pa., PST, etc. 5c a print, or trade for others. List and sample, 5c. Has 35mm slides of above.

JOSEPH WEIZEK, 1631 Cuyler Ave., Berwyn, Ill., wants any emp. tts., clearance cards, old calendars, books, maps, etc. from Milwaukee, C&Nw and Soo.

PAUL E. WESTBROOK, Jr., 3336 Broad Ave., Altoona, Pa., wants to buy size 116 or 616 size Pennsy loco pix, esp. Q. J and T class. Send list.

BOB WILLEY, 141 Laurel St., Santa Cruz, Calif., wants old-time pix of South Pacific Coast, Ocean Shore, Union Traction Co., and western elec. and short lines. Has pix to trade.

Has pix to trade: LEWIS WALNER, 1105 Sheridan Ave., Bronx 55

LEWIS WITHINER, 1105 SHEIRIGH AVE, DIOIX 50, NY., wants any emp. tts. and rr. maps in U.S. and Canada, esp. NYC and Pennsy mainline.

RAYMOND WILSON, 1320 Ridge Pl., SE, Washington 20, D.C., wants pix of Diesel pass. trains, tts., etc.

MICHAEL WOITOWICZ, 3042 N. Sayre Ave., Chicago 34, Ill., offers old Milwaukee switchman's lantern, good shape, to best bid.

Model Trading Post

HOWARD BAIRD, 1109 W. Chestnut St., La Follette, Tenn., wants Gilbert 3/16 scale commt., and old wants Gilbert 3/16 scale egpmt., and old train catalogs

train catalogs.

JOHN DAVIS, Lockes Mills, Me., wants Lionel cars
610, 812-814 for use with engine 254E; will trade Redball
kit, old GT, B&M, WB, GT eng. bks., CN tts., GT
ship. ords., few 1883 GT RW of C shop, ords.

BOB E. HEGLUND, 1213 Grant St., Waukesha, Wis.,
has all type model bus, O gage plans for sale.

FRANZ KARN, 2713 S. 13th St., St. Louis 18, Mo.,
has 3 Lionel scale frt. cars; wants AF 449 loco, 4 chrome

coaches.

FRED B. KING, 1565 Union St., Brooklyn 13, N.Y., will trade full set '43 Railroad Magazine, excell. cond. for any AF O gage cars, track or accessories.

BOB A. Le MASSENA, 398 N. Maple Ave., E. Orange, N.J., will sell 00 parts or trade for loco photos. 200 Lionel truck-frames (no botsters), 4 Mason cyl. castings, odd lengths channel-brass for loco frames.

LEONARD LUCY, 136 Charles, Mishawaka, Ind., wants used HO eqpmt., track, switches, switch machines, locos, built-up cars, elec. eqpmt. regardless of cond. State cond and price.

locos, built-up cars, elec. eqpmt. regardless of cond. State cond. and price.
CHAS. McKINNIE, Jr., 4725 Madison Ave., Fresno 2, Calif., wants plans or pix to give data to build HO gage Kansas City Mexico & Orient boxcar; info. on size, color and design of herald needed also.
LLOYD PEGLER, 500 S. Grant, Crawfordville, Ind., wants old windup engines and keys to same, also motor for Lionel Vanderbilt engine No. 1689E.
G. W. RANDO, 11 Stanwix St., Albany 2, N.Y., will buy any O gage eqpmt.
WM. J. ROTTMAN, 208 McKinley St., N. Canton, O., will sell AF metal base HO track, 14 curved sect.,

Roador's Choice Coupon

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15 straight, 2 hand switches, also AF HO engine AC, to

highest bidder.

JOE SCHICK, Keenesburg, Colo., will sell 16½x38 in.
roto print drawings of D&RGW 3712 4-6-6-4 on 5/16 in.
scale (leftside, full broadside view) detailed, printed on
glossy paper. \$1 plus 10c post.
JOHN C. TEZER, 75 N. Summit St., Bergenfield, N.J.,
will sell Walthers HO old style open-end baggage coach

in kit form.

G. WILLIAMS, Box 116, Alpena, Mich., will sell 700 EW Lionel loco, six 2624 series 14 in. red passenger cars, four 18 in. O gage passen. cars, trucks, NYC 17 in. combine car and track.

Flag Stops

THE KNOW-HOW of researching and writing a rail-road article is ample matter for the Railroadians of America's latest bulletin, Railroad Historical Research. Issued as encouragement to would-be authors, it takes a quick but circumspect look at needs and opportunities of the field, and comes out strong for road histories. In fourteen large size pages a project is outlined—what information the writer will need, where to find it, the best technique in presenting the finished product. For its brief treatment, this booklet is both complete and effective. Copies at 25c each may be had from H. L.



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JUNE ISSUE OUT MAY 10TH!

JUNE ISSUE OUT MAY 10TH!

Tilton, treas., 761 W. Inman Ave., Rahway, N. J. HISTORY of Kentucky's Riney B. (Richmond, Nicholasville, Irvine & Beattyville) from the lynching party which informally dedicated its \$170,000 bridge, to its absorption by the L&N and eventual abandonment is featured in current issue of The Kentucky Engineer. Copies can be had at 25c each from The Editor. University of Kentucky, Lexington, Ky.

FIRST exhibit of Long Island Model RR Ass'n will be held at their offices at 2368 Steinway St., Astoria, L. I., May 10-12 and 17-19 (Fridays 7-10 p.m.; Sat. and Sun. 2-5 p.m., and evenings). Admission: 25c.

ERA FANTRIPS. Tour of Pennsy facilities serving Camp Kilmer. Trains leave Jersey City, May 26th, 10 a.m. Tickets \$3.25, or \$2.75 if bought before May 21st. Trip over Hershey Transit Company and Conestoga Transportation lines, starting from Lancaster, Pa., at II a.m. June 16th, Tickets \$4 after June 14th; \$3.50 in advance. Details on both can be obtained from Electric Railroaders' Ass'n, 51 W, 35th St., New York City.

TOPIC of Railroad Enthusiasts' May 22nd meeting is Locomotives, today's giants and those on the drawing board. Place: Room 5928, Grand Central Terminal, New York; time: 7:45 p.m.

PLANS for excursions and renewal of monthly meetings of California-Nevada Railroad Historical Society are underway. For details see Ted Wurm, 314 15th St., Oakland 12, Calif.

Section Foreman's Dream

FXTRA Seven-four-six went into the ditch

At the switch, just south of the tower, Put the engine and tank And ten cars down the bank. And held Number 8 for an hour. They called us all upon the carpet, The G. M. was sore, it would seem, Thought they'd give me the walk Till they started to talk. Then I knew it was only a dream.

With a hand on the engineer's shoulder, The trainmaster said with a sigh: "It was not a low joint Or a battered switch point, He was taking the 'puzzle' in high." Then the engineer said with conviction: "I can prove by the man in the tower, When he gave me the ball I was rocking them all, And rolling them sixty an hour."

The master mechanic yelled loudly: "If you'll let me I'll prove in a jiff, My department's to blame, I acknowledge with shame, That the engine was rigid and stiff." I'm not much at visions or dreaming, It's seldom I sleep on my back, I can sidestep and scheme, But it sure is a dream When they don't put the blame on the track.

-Main Central Employee Magazine



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The Course in Appliance Servicing arrived a few days ago. Want to take out a few minutes of my valuable time to let you know that this is just what I have been looking for ever since I opened up my Fix-It shop. I must admit that you told the truth when you said that it contains quite a bit more information than I bargained for.—P. J. Bretl. Sebring. Ohio.

I am a mechanic for the Western Union Telegraph Co. Three days after receiving the lessons in refrigeration I earned the exact cost of the course.—Henry S. Lee, Washington, D. C. I work day times at the shipyard and after 4:00 P.M. I operate from my cellar and garage. I average \$10.00 to \$15.00 clear every day.—Walter Hanhy, Brockton, Mass.

day.—Walt

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