

The Lehigh Valley's tower at Athens, Pa. controlled the throat to its yard at Sayre. At right, a towerman watches the two main tracks. The microphone and other equipment are arranged to leave his hands free to copy paperwork including clearance forms. Robert Archer

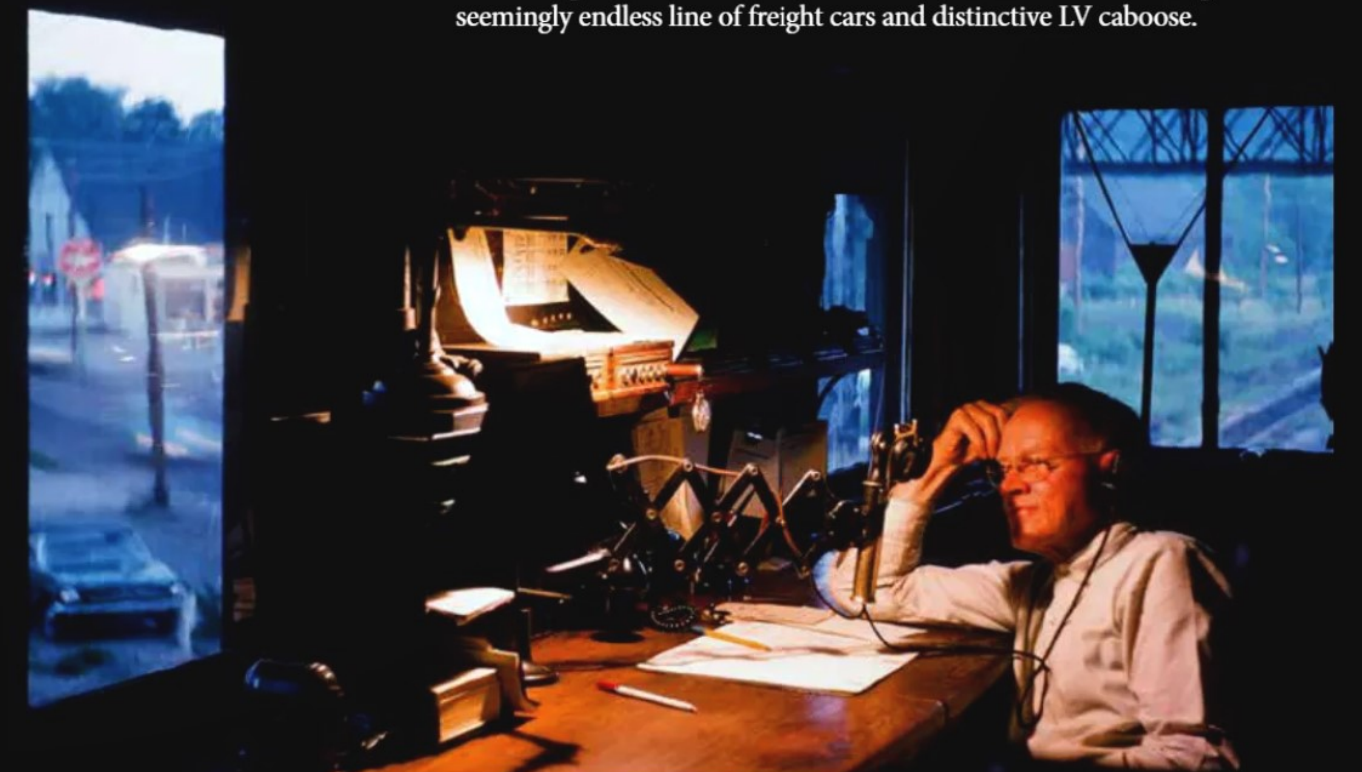
THINGS GO SMOOTHLY FOR A RELIEF LEHIGH VALLEY TOWERMAN - UNTIL THEY DON'T

BY DAVID MARCHAM

THIRD TRICK AT ATHENS, PA.

It was a beautiful late-summer evening when I left an Athens, Pa., diner and began walking along North Main Street. It was quiet as there was little traffic on this main artery that connected the Wilkes-Barre area, Sayre, and the New York-Pennsylvania border.

Most of the 4,400 residents of this northern Pennsylvania community were no doubt preparing for a good night's rest. But the quiet was interrupted by the deep-throated whistle of an approaching Lehigh Valley locomotive. Up ahead, I could see crossing gates lowering and soon a large 4-8-4 locomotive trundled across Main Street trailing a seemingly endless line of freight cars and distinctive LV caboose.





While the interlocking plant at Athens Tower was electrically operated, the crossing gates for Main Street were not. A towerman works the pump lever that raised and lowered each set of gates individually. He had three minutes to lower three sets of gates. Robert Archer



A souvenir from one of the author's visits to Athens. Shot with a Kodak box camera in the late 1940s, this view captures the tower, left, and the signal bridge controlling the approach to Sayre Yard. The shot is from the Athens station platform. David Marcham

Townpeople in many otherwise peaceful communities might resent the nightly sounds of the passing trains. However, this probably wasn't the case in Athens and neighboring Sayre as the railroad provided jobs and income for a sizable portion of the people. Both could be reasonably identified as "railroad towns" thanks to the presence of the LV's large Sayre shop facilities and home terminal for numerous train and engine crews.

Once the train cleared the crossing and the gates were up, I crossed the tracks and climbed the stairs to Athens Tower. It was about 9:35 p.m., June 29, 1950, when I was greeted and briefed by the second-trick towerman-telegrapher. He had just reported the early arrival of westbound train JM-1, a low-priority Jersey City to Manchester freight.

Athens was the dividing point between the Buffalo-headquartered dispatcher controlling all operations west of Sayre and the Wilkes-Barre dispatcher whose territory covered the main and branch lines east to Lehighon. The latter was the Athens towermen's boss and they were expected to respond to his calls quickly and promptly report the passage of trains.

Under union rules, train and enginemen were not allowed to talk directly with dispatchers (except in emergencies) but instead communicated via the operators. All train orders and other messages from the dispatcher to train conductors and enginemen were dictated to the operators who then delivered them in writing, typically by hand or using train-order hoops.

The Wilkes Barre dispatcher's territory encompassed the 150-mile central part of the Lehigh Valley's 448-mile main line that stretched from Jersey City, N.J. to Buffalo, N.Y. Lehighon (MP 119) was at the east end, Gracedale (MP 159), Mountain Tops (MP 160), Wilkes-Barre (MP 176), Coxton Yard (MP 186), Tunkhannock (MP 207), Towanda (MP 254), Athens (MP 169) and Sayre (MP 171). Coxton Yard was a crew-change point for freights and base for helper crews. Branch lines beginning at Penn Haven Junction (MP 131) and Tannery (MP 144) tapped the network of anthracite coal branches in the Hazleton area.

The main line was double-tracked, except for an 11-mile single-track section between Mountain Top (MP 160) and Conway (MP 171) five miles east of Wilkes-Barre. Freight trains operated over the double-track 20.5-mile Mountain Cutoff between Gracedale and Coxton. The main and Mountain Cutoff were operated under Rule 251 signaling which provided for operation in one direction only.

The Athens interlocking plant had 32 pistol-grip levers that controlled three sets of upper-quadrant and three sets of dwarf



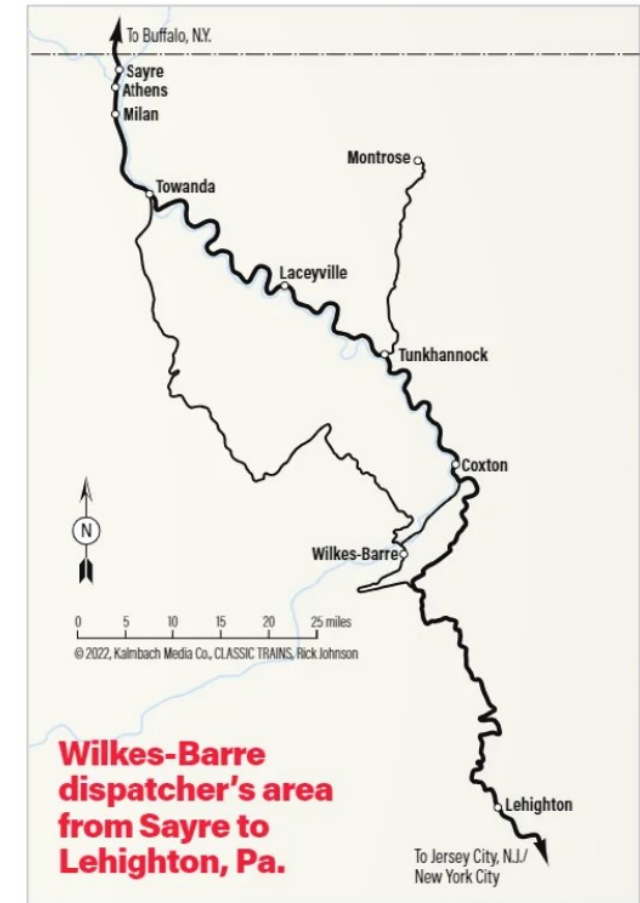
signals, two switches, one trailing-point crossover and four switch locks. It was a relatively new plant with everything electrically controlled, rather than many of the other mainline towers that had floor-based "Armstrong" levers that moved the switches through trackside rods. A large signal, switch, and track occupancy display panel hung over the levers. Athens tower controlled the east ends of the eastbound and westbound Sayre yard leader tracks.

The towermen's desk faced the two main tracks and had telephone and telegraph instruments, a telephone headset, microphone on a collapsible extension arm, and a pedal under the desk which turned on the microphone when depressed. The telephone arrangement enabled towermen to have both hands free to copy clearance cards, train orders, and messages from the dispatchers, and to listen without the microphone being on.

The telegraph system consisted of a key and sounders. There were two lines: one for message work and another for use in case of a telephone transmission problem. All the train dispatchers' business and local communications were conducted by telephone. Nearly all the railroad's messages were transmitted by telegraph; by 1950 LV employed almost 400 telegraphers.

There were four telephone lines into Athens Tower: one each for the Buffalo and Wilkes-Barre dispatchers; a block line connected to the Towanda agent-telegrapher's office together with intermediate stations and wayside telephone booths; and a second linking Athens tower and station, Sayre passenger station, yard office, and State Line Tower (MP 173) at the west end of the Sayre Yard. A small switchboard had plug holes for each line.

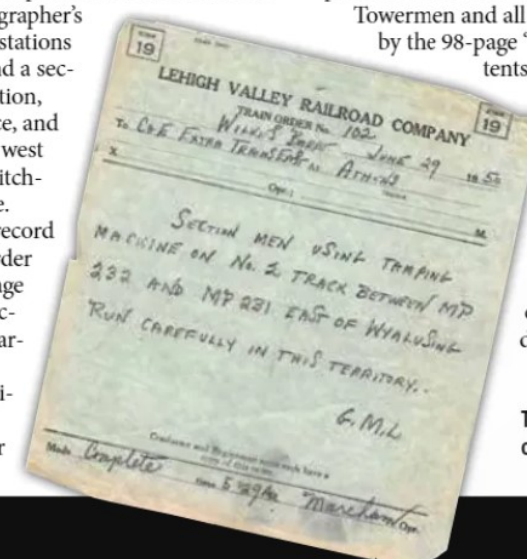
On the desk was a daily train record sheet and supply of blank train order forms, clearance cards, and message forms to be completed at the direction of the train dispatcher. The carbon sheets were necessary since most of these were copied in triplicate, one for each engineer, one for each conductor and a third for



tower records. A Y-shaped wooden train-order hoop was kept near the desk ready to deliver paperwork to the train engineers. Conductors received paperwork via a unique combination of hoop-and-basket hung outside the window. Towermen tied the paperwork to the hoop string and lowered the basket and hoop for the conductor or flagman to receive and for them to deliver the train consist summary. This document provided a count of cars in the train separated by destination group, loads by type of commodity, and empties by type of car. The conductor was in possession of all the waybills and empty car cards in his train.

Towermen and all other operating employees were governed by the 98-page "Lehigh Valley Book of Rules." The contents were dedicated to insuring safe, efficient railroad operations; the first sentence emphasized, "Safety is of the first importance in the discharge of duty."

This would be my last night doing vacation relief work for the third-trick towerman-telegrapher. As in previous evenings and with no trains expected for the next two hours, I began reading the day's train register while listening to the dispatchers' lines. Athens daily freight op-



Tower operators copied and relayed train orders like this one. David Marcham collection



One of Lehigh Valley's T-2 4-8-4s is in charge of a symbol freight of reefers near Rummerfield, Pa., east of Towanda. It took some burly power to keep trains on time given the topography of the line that followed the curvy Susquehanna River. Donald Furler



Sayre Yard was also a major shop complex for the Lehigh Valley. It boasted a huge roundhouse and facilities for maintenance and heavy repairs of the railroad's steam locomotive and rolling stock fleets. Here, the yard switcher assembles a train. David Marcham

erations usually consisted of six westbound symbol (scheduled) and up two westbound extra trains, four symbol and two to four extra eastbound trains, plus two local freights each way. The symbol trains generally operated close to their published times.

The Lehigh Valley passenger service west of Coxton included the daytime *Black Diamonds* Nos. 9 and 10 (eastbound trains had even numbers, westbound odd); 11 and 4, the overnight *Star*; and 7 and 8, the *Maple Leaf*. The overnight trains carried coach and sleeping car passengers. These also were typically operated on or very close to their advertised times.

My particular interest was the progress of trains headed for Athens. Lehigh Tower reported the on-time departure of No. 7, the *Maple Leaf*, at 10:07 p.m. Ithaca reported No. 4, the *Star*, a Buffalo-New York City train, out on schedule at 11:04 p.m. Lehigh Tower reported the departure of FFW-1 at 11:15 p.m. It was a recently introduced high-speed piggyback train to capture the

growing market of long-distance truck traffic.

Shortly before midnight, I turned to watch the display panel for the departure of No. 4 from Sayre station. A bell sounded and a track occupancy light appeared at 11:57 p.m. I pulled out the eastbound mainline home signal lever to give the engineer a proceed indication then walked over to the windows facing North Main Street, where the controls for the crossing gates were located.

A pump lever actuated a hydraulic system that lowered and raised each set of gates one at a time. For eastbound passenger trains, towermen had three minutes to lower all three sets of double-arm gates: one for northbound and another for southbound Main Street, and a third for traffic from the nearby station. Passenger trains in both directions sped through at the maximum 75 mph. Freights entering and leaving Sayre yard leader tracks were limited to 15.

Train 4 passed Athens at exactly midnight with a scheduled 6:55 a.m. arrival at New York City's Penn Station. I promptly reported the passage of this *Star* to the two dispatchers and the Towanda agent-telegrapher.

I continued to monitor the Wilkes-Barre dispatcher line and heard Coxton Tower report the departure of train No. 7 at 12:05 a.m. followed closely by a westbound extra freight led by a Class N 2-8-2, and later FFW-1 at 1:30 a.m. The dispatcher apparently estimated that the quarter-century-old locomotive could reach Athens and Sayre before FFW-1 arrived about at 3 a.m.

Westbound symbol freights were normally allowed 2 hours 15 minutes for the 83 miles from Coxton to Athens. However, FFW-1 had an authorized 60 mph speed limit and was expected cover the same distance in 1 hour 35 minutes. Unknown to me at the time, the extra's crew had been on duty since 11 a.m. the previous day and would reach its 16-hour federally mandated hours of service limit at 3 a.m.

Tunkhannock reported the *Maple Leaf* by at 12:26 a.m. and the extra at 12:45. With Laceyville (MP 225) closed during the night and on weekends, the Lehigh Valley used an outdoor mi-

This sheet tracked progress of the railroad's symbol freights. The author saw FFW-1 and BNE-2 play roles during his time in Athens Tower. David Marcham collection

crophone to capture the sounds of passing trains. It turned on when a train entered the eastbound or westbound signal blocks. I heard the sound of No. 7 at 12:44 and the westbound extra at 1:10 a.m.

Train 7 passed Athens at 1:32 while its counterpart No. 8 sped past the tower at 1:56, both on time. Towanda reported the extra west by about 2:05 a.m. and FFW-1 could be heard passing the open microphone about 2:10.

About 2:45, the Wilkes-Barre dispatcher called to ask if I'd seen the westbound extra. My answer was no. Soon the local Towanda line phone began ringing. To my surprise, it was the extra's engineer asking to speak to the dispatcher.

Once connected, the engineer said he'd stopped his train at Milan (4 miles east of Athens) because of a hotbox on the tender. It couldn't move until the journal box cooled and was re-packed. He added the crews would "outlaw" in 15 minutes. The dispatcher told him he'd get a relief locomotive and crew as soon as possible.

Once back on the engine, the engineer sounded one long and three short whistle blasts signaling the flagman to protect the rear of the train. Under Rule 99, the flagman was required to take a red fusee and two track torpedoes and walk back a sufficient distance to stop a following train. The torpedoes were to be secured to the rails and fusee lit upon approach of a train.

The dispatcher immediately called the Towanda operator and instructed him to stop FFW-1, then called the Sayre yardmaster and asked him to send a crew and engine east as soon as

possible to bring back the disabled train. The yardmaster answered he would have neither available for more than an hour as they were busy switching the just-arrived, hour-late BNE-2 eastbound freight. More manpower was tied up assembling four merchandise trains including the night moves to Auburn and Cortland, N.Y., the high priority Delaware & Hudson train to Binghamton with cars for eastern New York and New England, plus an extra eastbound freight destined for Coxton.

The dispatcher had to decide whether to let FFW-1 run west from Towanda to Athens via the eastbound main or have it wait for BNE-2's arrival. The latter was one of the highest priority freight trains, carrying cars for delivery to destinations on several connecting regional railroads at Coxton, Lehigh, and Bethlehem. The LV had competition from the Delaware, Lackawanna & Western and Erie for much of this traffic. BNE-2 was scheduled to arrive at Oak Island Yard in Jersey City at noon.

The answer came soon when he instructed the Towanda agent-telegrapher to inform the FFW-1 crew they'd be waiting there for BNE-2. Then it was time for my lunch.

It was well after 3:30 a.m. when the yard office called to report BNE-2 was on its way down the eastbound leader. I noti-



One of the railroad's passenger-hauling Pacifics takes on coal from the facility at Sayre. These 4-6-2s were typically on the point of LV's premier passenger train, the *Black Diamond*. David Marcham



A westbound freight, led by R-1 2-10-2 No. 4053 rolls into Coxton Yard off the Mountain Cutoff. The diverging tracks to the right are the more direct line to Wilkes-Barre. Coxton was a crew change point and helper locomotive base. W. R. Osborne



This view is looking railroad west at Athens Tower. Along the track at left is the equipment connecting the tower to the signal bridge. Main Street is in the foreground. Robert Archer

A BUSY OVERNIGHT AT ATHENS, PA.

~ indicates approximately.

9:35 p.m.	Arrival for duty
11:57 p.m.	No. 4 Star departs Sayre EB
12:00 a.m.	No. 4 Star OS Athens EB
12:05 a.m.	No. 7 Maple Leaf departs Coxton WB
~12:15 a.m.	Extra departs Coxton WB
12:26 a.m.	No. 7 Maple Leaf OS Tunkhannock WB
12:44 a.m.	No. 7 Maple Leaf heard at Laceyville WB
12:45 a.m.	Extra OS Tunkhannock WB
1:10 a.m.	Extra heard at Laceyville WB
1:30 a.m.	FFW-1 departs Coxton WB
1:32 a.m.	No. 7 Maple Leaf OS Athens WB
1:56 a.m.	No. 8 Maple Leaf OS Athens EB
2:05 a.m.	Extra OS Towanda WB
2:10 a.m.	FFW-1 heard at Laceyville WB
2:45 a.m.	Wilkes-Barre dispatcher inquires to Athens about WB Extra. Extra engineer calls Athens shortly after and explains hotbox and crew issues. Train stopped at Milan on westbound main.
~3:00 a.m.	Dispatcher instructs Towanda to stop FFW-1; requests relief crew and locomotive from Sayre
~3:45 a.m.	BNE-2 OS Athens EB
~4:30 a.m.	Relief engine from Sayre OS Athens, EB on WB main
~4:30 a.m.	BNE-2 OS Towanda EB
~4:45 a.m.	FFW-1 backs across crossover at Towanda to EB main
~5:00 a.m.	FFW-1 departs Towanda WB on EB main
~5:15 a.m.	Extra departs Milan WB with relief engine and crew
~5:30 a.m.	FFW-1 OS Athens, moves from EB to WB main; Extra OS Athens, moves from WB main to WB Sayre yard leader; relief towerman arrives
~5:40 a.m.	Author walks to Sayre station to catch No. 11 Star to Ithaca



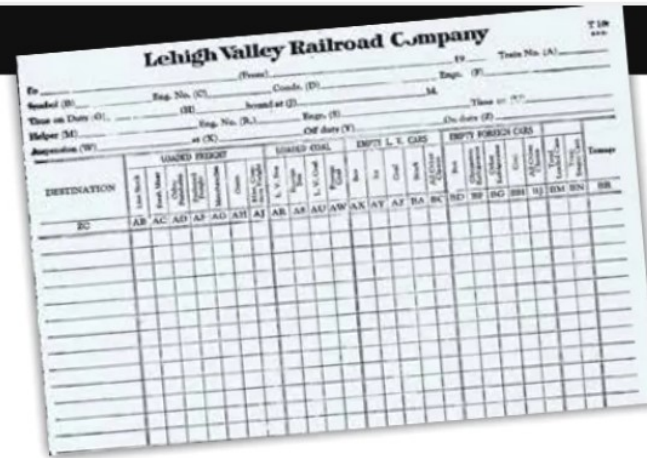
LV 4-6-2 No. 2024 rolls a freight into Sayre Yard in the late 1940s. Situated in the middle of the system, it was one of the busiest spots on the 450-mile main line. H. D. Runey

fied the Wilkes-Barre dispatcher of BNE-2's departure from Sayre. He instructed me to prepare a Clearance Card Form C authorizing BNE-2 to leave Athens and to indicate there were no orders for the train. After completing the Clearance Card, I attached them to the strings on the train-order hoops.

Once the hoops were ready, I unlocked, reversed, and relocked the crossover and eastbound leader switch then cleared the eastbound leader home signal. Then I lowered the gates after the locomotive's headlight appeared, held the hoop out the window and down far enough for the engine crew to grab their card, and lowered the basket and hoop. Almost simultaneously I observed the train for defects, gave a highball signal to the rear-end crew, raised the gates after the caboose passed, restored the eastbound leader signal lever to normal, unlocked the switches, restored them to normal positions, and relocked them.

Next came retrieving the train summary and notifying the dispatcher of its departure and consist, plus notifying Towanda of the train's leaving. Finally, I contacted the Coxton yard office by telephone via the Sayre yard office, LV trunk line, and Coxton local line and dictated the train consist details to the yard telegrapher. This information would be used by the yardmaster to prepare for switching BNE-2 upon its arrival.

Sayre yard office called to report that an eastbound extra freight was coming down the eastbound leader and the relief



engine was coming east on the westbound leader. Upon notifying him of these moves, the dispatcher dictated a Form 19 train order addressed to the relief crew and myself granting the relief conductor and engineer "right over opposing trains on number one track from Athens Tower to Milan." I repeated the order to the dispatcher and he authorized me to prepare a clearance card with the train order.

My next move was to unlock, reverse, and relock the westbound leader switch and clear the eastbound leader signal. I waited for the engine - another aging 2-8-2, lowered the gates, went downstairs, crossed the eastbound main and delivered the clearance cards and train order to the crew. The engine left about 4:30 a.m. I reported its departure to the dispatcher.

About the same time, Towanda reported the passing of BNE-2. The dispatcher instructed the Towanda operator to have FFW-1 back over the crossover to the eastbound main track. Next, he called Towanda and myself and dictated a train order to FFW-1's crew giving them authority to operate westbound on number two track from Towanda to Athens. We both repeated and completed the order and Towanda prepared a clearance card for the westbound train's crew. The final step was for me to block the eastbound signal levers as a safety precaution in accordance with the *Book of Rules*.

Thirty minutes later, Towanda reported departure of FFW-1

Trainmen used a consist sheet to detail the cars in their train: what kind, how many, and where they were going. David Marcham collection

on the eastbound main. About 5:15, the Towanda block line rang and the relief crew conductor reported they were leaving Milan with the extra west. I notified the train dispatcher and called the yard office to report on both consists.

With both westbound trains approaching, I reversed the crossover and the westbound leader switches. Once the trains occupied their approach circuits, I cleared their respective signals and lowered the crossing gates. FFW-1 would cross over from the eastbound to westbound main tracks and the extra would move from the westbound main to the westbound leader.

Both appeared about 5:30 a.m. and almost simultaneously the first-trick towerman arrived for work. He'd come early to accommodate my plan to leave Sayre on Train 11, scheduled to depart at 6:15 a.m. After briefing him on the situation, I picked up my suitcase and began a walk to Sayre station.

Safely on board the *Star*, I headed home to Ithaca for rest. In 17 hours, I'd be climbing the Cortland Junction, N.Y. tower steps to prepare for another vacation relief assignment. 📌



The author caught this freight waiting for a signal on the Sayre Yard lead. The 4-8-4 has its work cut out for it. David Marcham



A towerman watches the progress of a train through the Athens Tower interlocking plant on a lighted occupancy board out of the camera's view. He'll pull the electrically actuated pistol-grip levers to give the consist the proper routing. Robert Archer