

Inv-2195

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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REPORT OF THE DIRECTOR  
BUREAU OF SAFETY

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ACCIDENT ON THE  
PENNSYLVANIA RAILROAD

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NEW GALILEE, PA.

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AUGUST 18, 1937.

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INVESTIGATION NO. 2195

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SUMMARY

Inv-2195

Railroad: Pennsylvania

Date: August 18, 1937.

Location: New Galilee, Pa.

Kind of accident: Derailment - wreckage struck by passenger train.

Trains involved: Freight: Passenger

Train numbers: ED-38 No. 302

Engine numbers: 6902 7280

Consist: 8 cars 9 cars

Speed: Unknown 50-60 m.p.h.

Track: Tangent; generally descending grade on storage track with a maximum of 1 percent; slight descending grade for passenger train on adjacent main track.

Weather: Dark and cloudy

Time: 4 and 4:13 a.m.

Casualties: 2 killed

Cause: Failure of train crew to discover that cars did not couple and failure to station a rider on the lead car of a cut of cars being shoved into a storage track.

October 7, 1937.

To the Commission:

On August 18, 1937, there was a derailment of a runaway cut of freight cars on the Pennsylvania Railroad near New Galilee, Pa.; the derailed cars which fouled the adjacent main track were struck by a passenger train, resulting in the death of two employees.

#### Location and method of operation

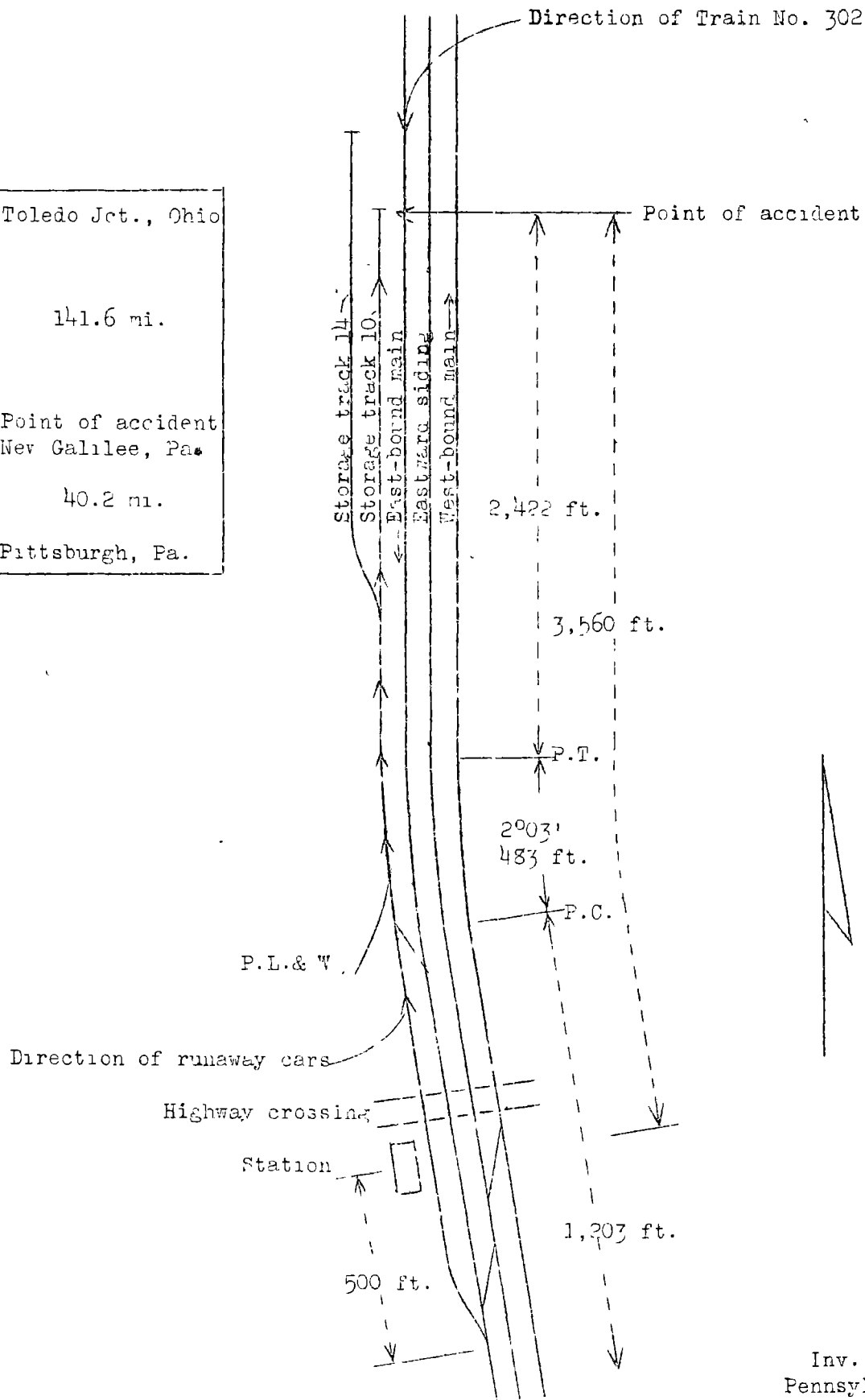
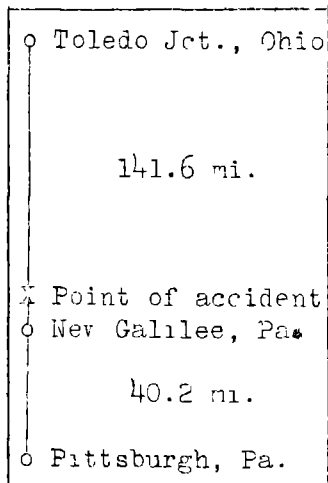
This accident occurred on that part of the Eastern Division which extends between Pittsburgh, Pa., and Toledo Jct., Ohio, a distance of 181.8 miles. In the vicinity of the point of accident this is a double-track line over which trains are operated by timetable, train orders and an automatic block-signal system. At New Galilee the main tracks are separated by an eastward siding, and south of the eastward main lies track 10 which extends a distance of 4,060 feet westward from its connection with the main track at a point 500 feet east of the station, and terminates in a bumper consisting of earth, slag and stone. The Pittsburgh, Lisbon & Western Railroad connects with this track approximately 775 feet east of the station and uses it as a transfer track for delivery of cars to the Pennsylvania R.R. The center to center distance between the eastward main track and track 10 is 13 feet except at its western end where for 15 feet the spread is 14 feet 3 inches. A State highway crosses the tracks just west of the station.

The accident occurred at a point approximately 3,535 feet west of New Galilee station. Approaching this point from the east on storage track 10 there is a 2003' curve to the right 483 feet in length, followed by tangent track for a distance of 2,422 feet, with 15 feet of flare at the western end of the track. Approaching the point of accident from the west, the eastward main track is tangent for a distance of 3,532 feet. The grade for west-bound movements on storage track 10 is descending for approximately 3,000 feet, varying from 0.16 percent to 1.00 percent, then level for 800 feet, 0.23 percent ascending for 100 feet, and 0.57 percent descending for 160 feet to the end of the track. Approaching from the west the eastward main track is level for a distance of 1,100 feet, followed by 0.027 percent descending grade for 1,700 feet to the point of accident.

The last automatic signal governing east-bound trains is located 4,628 feet west of the point of accident.

It was dark and cloudy at the time of the accident; the derailment occurred about 4 a.m. and the passenger train struck the wreckage about 13 minutes later.

#### Description



Inv. No. 2195  
 Pennsylvania R.R.  
 New Galilee, Pa.  
 August 18, 1937.

A P.L. & W. freight train, arrived at New Galilee at 8:50 p.m. August 17th, with 10 loaded cars and 2 test weight cars for delivery to the Pennsylvania Railroad, and after picking up one car of ties, the entire train was placed on the east end of track 10 against an empty gondola car already there, thus making a total of 12 cars on that track. In order to clear the State highway, however, this draft of cars was cut, 4 cars being left east of, and 8 cars west of, the highway crossing.

Train ED-38, an east-bound freight train, consisting of 26 cars and a cabooso, hauled by engine 6902, was in charge of Conductor Carter and Engineman Masters. This train arrived at New Galilee at 3:40 a.m., August 18, and backed in on the siding between the two main tracks. Engine 6902 with 5 cars then backed in on track 10 against the cars which had been left there by the P.L. & W. train. After coupling to the 4 cars east of the highway crossing, they backed against the remaining 8 cars west of the crossing and continued westward until the highway crossing had been cleared. However, the coupling had not been made when backing against the 8 cars, which continued westward to the end of the track where the 2 lead cars became derailed and fouled the eastward main track.

Train No. 302, an east-bound passenger train, consisted of 2 box cars equipped for passenger-train service, 1 deadhead parlor car, 1 baggage car, 1 express car, 1 storage mail car, 1 baggage and mail car, 1 combination car, and 1 coach, hauled by engine 7280, and was in charge of Conductor McElroy and Engineman Bieri. This train departed from Alliance, Ohio, 42.7 miles from New Galilee, at 3:19 a.m., 19 minutes late, passed Leetonia, 23 miles west of New Galilee at 3:49 a.m., 5 minutes late, and struck the derailed cars, which fouled the eastward main, while traveling at a speed variously estimated to have been from 50 to 60 miles per hour.

The derailed cars of the runaway cut had stopped with the rear end of the first car and the front end of the second car fouling the east-bound main. The passenger train raked the side of the first car at its rear or eastern end about 6 feet and the entire length of the second car. The passenger train was damaged its entire length on the right side; the engine cab was torn loose and badly damaged. No part of the train was derailed, however, and it stopped with the engine approximately 1,800 feet beyond the point of accident. The employees killed were the engineman and fireman of the passenger train.

#### Summary of evidence

Conductor Kennedy, and Brakemen Cusick and Inman, of the P.L. & W. train, stated that when the cars were set out on track 10 on the evening of August 17th a cut was made to clear the highway

crossing. They agreed that the hand brake was set on at least one of the cars left east of the crossing, and Brakeman Inman stated that he had set the hand brake on the most westerly car of the cut left west of the crossing. This they considered sufficient to secure the cars.

Conductor Carter, of Train ED-38, stated that at New Galilee his train was backed into the siding without any protection other than a fusee, as he had instructed his flagman to come to the head end of the train and help with the work. After the train had stopped on the eastward siding the engine and 5 head cars were backed in on track 10, and the flagman made the coupling to a cut of four cars standing east of the road crossing. Conductor Carter was at the west end of a cut of 8 cars standing west of the crossing when the flagman signaled the train to back over the crossing, and while checking the cars he bled the air until he met the flagman at a point about 3 or 4 car lengths west of the crossing. He did not observe whether the hand brakes were set on any of the cars, but he did note that the 8 cars west of the crossing were coupled together. Although no one was in position to ride the lead or west end of the cut, and no steps had been taken to make sure that all of the cars were properly coupled, he gave a back-up signal and then went over to the telephone in the crossing watchman's shanty and reported the main track clear. He looked at his watch when the cars were in the clear and it was 4:01 a.m.

Flagman Scott, of Train FD-38, stated that he rode the last car of the 5-car draft into track 10, coupled onto a box car, and after noting that the knuckle on the west end was open, gave a back-up signal and coupled to a cut of 3 cars standing just east of the crossing. He then went to the road crossing and gave a back-up signal and after the two cuts came together he looked to see if the lock block had dropped and he thought that it had. A hand brake was set on one of the cars that had been standing east of the crossing. He then started bleeding the last draft of cars, working westward toward the conductor who was bleeding the cars from the western end and they met about 2 car lengths from the crossing. Flagman Scott then asked the conductor if the crossing was to be cleared and upon receiving an affirmative reply he gave a back-up signal and the entire cut was moved back to clear the crossing. The conductor then went to report the main track clear, while he threw the derail and the head brakeman closed the main track switch, after which they all went to the crossing watchman's shanty where the fireman joined them. Shortly afterward they saw Train No. 302 approach and became aware that an accident had occurred when that train stopped suddenly. After the accident Flagman Scott examined the couplers at the ends of the cars that had failed to couple and found the coupler at the west end of the 4-car draft open, while the coupler at the eastern end of the 8-car draft was closed. Flagman Scott further stated that it is not customary for the flagman to assist in the work at the head end of the train, but in this instance the conductor had asked his help as Head Brakeman Erwin was not familiar with the work.

Head brakeman Erwin, of Train ED-38, stated that he is not the regular brakeman on this run and is not very familiar with the territory at New Galilee. The conductor informed him that their train was to back in on the siding there, but did not tell him just what work was to be performed, except that they were to clear for Train No. 302. The flagman made the couplings, and he carried out the flagman's instructions as to the throwing of the switches.

Engineman Masters, of Train ED-38 stated that as he was making the last back-up movement on track 10, the conductor passed the engine and told him to stop clear of the road crossing. He noticed that all of the members of the train crew were at the head end and realized that it was not necessary to call in the flagman. Some time after the accident when he was able to get into the cab of the engine of Train No. 302, he found the throttle closed and the automatic brake valve in emergency position. The statement of Fireman Reed brought out nothing additional of importance.

Conductor McElroy, of Train No. 302, stated that his train was traveling at a speed of 50 or 55 miles per hour when he felt a jar and the air brakes were applied in emergency at the same time. The air brakes had been tested before leaving Cleveland and functioned satisfactorily. Head Brakeman Montgomery estimated the speed to have been 55 or 60 miles per hour at the time of the accident, while Flagman Fulton thought it was about 55 miles per hour.

Assistant Master Mechanic Patterson, Assistant Trainmaster Crawford, Assistant Road Foreman of Engines Jones and Car Inspector Rimer made an examination of the coupler at the eastern end of the 8-car cut and also of the coupler at the western end of the cars which had remained coupled to engine 6902 and found them in good condition and operating properly. Inspection was made of the hand brakes on the 8-car cut; none of them was applied and all worked properly with the exception of the brake on the first derailed car; the brake staff on this car was bent, probably a result of the accident, and it could not be operated due to the position of the car.

Car Foreman Forsythe and Gang Foreman Holsinger made a detailed inspection of the cars that had failed to couple, PRR 568658 and C&O 8354, after they had been moved to Conway, and their inspection report indicated that the couplers and all parts worked freely and were in operative condition, with no evidence that either coupler had passed or pulled by the other coupler.

Examination was made by the Commission's inspectors of the hand brake on PRR car 861770, the west car of the runaway cut of 8 cars, and it was found that because of damage resulting from the accident, the prior condition of the hand brake could not be deter-

mined. Examination also was made of the couplers and attachments on the east end of C&O car 8354, and of the west end of PRR car 568658, the west car of the cut that remained coupled to engine 6902. The coupler on C&O 8354 was of the "E" type with a "D" type knuckle, and rotary uncoupling mechanism, and was in good condition and operated properly. The coupler on PRR car 568658 was a "D" type coupler with a Garmer uncoupling mechanism; this coupler worked properly when the knuckle was snapped closed quickly by hand, but failed twice in approximately 20 trials when closed slowly by hand. In each case of failure, however, the lock lift stood up out of the top of the coupler  $2\frac{1}{2}$  inches higher than it would have if the coupling had been successful, thus plainly indicating a failure. Further examination showed the lock block bent to the extent that it was approximately  $\frac{3}{32}$  inch out of contour; the knuckle pin holes in the coupler body were elongated approximately  $\frac{1}{16}$  inch, and it was evident that the contour of the coupler had been restored at some previous time by welding about  $\frac{1}{4}$  inch of metal on the lock block face of the tail of the knuckle. The left wall of the coupler body was cracked from pounding by the knuckle tail, but the extent of these cracks had not reached the limits requiring the removal of the coupler from service. The bent lock block was replaced by a second-hand lock block and in each of several trials made afterwards, including all slow and quick movements in closing the knuckle by hand, the coupling mechanism worked properly. The draft gear and attachments of this coupler were found in fair condition.

Since the occurrence of the accident the flare at the end of storage track 10 has been increased from 1 foot 3 inches to 7 feet.

#### Discussion

The investigation disclosed that two cuts of cars which had been left standing on a storage track, one consisting of 4 cars and the other of 8 cars, were to be picked up by Train ED-38, but when the 4-car cut was backed against the 8-car cut the coupling was not made. Flagman Scott, who was at the head end of the train assisting in the switching work at the direction of the conductor, failed to discover that the cars had not been properly coupled, and a further back-up movement was made to clear a crossing; when the engine and cars coupled to it stopped, the 8 rear cars continued on to the end of the storage track where they were derailed. This condition was not discovered by the crew of the freight train, and the cars did not foul the main track in a manner to operate the automatic block signals; as a consequence the crew of the approaching passenger train had no advance warning of danger. Both the engineman and the fireman of Train No. 302 were killed as a result of the accident; the evidence indicates, however, that an emergency application of the brakes was made at about the time the passenger train struck the derailed cars.



Rule 103 provides that when cars are pushed by an engine, a trainman must take a conspicuous position on the front of the leading car; however, no one rode the lead car as the back-up movement into the storage track to clear the crossing was made, and as all of the members of the train crew were in the vicinity of the engine the fact that the rear eight cars were not stopped with the remainder of the cut was not discovered. Head Brakeman Erwin was a new man on this run and was not familiar with the territory at New Galilee; Conductor Carter therefore instructed the flagman to assist in performing the work, but made no provision whatever for flag protection. If the flagman had been attending to his duty as a flagman, it is possible that he would have discovered that the cars had separated and would have been in a position to flag Train No. 302 before it struck the derailed cars.

#### Conclusion

This accident was caused by failure of a train crew to discover that a coupling between two cuts of cars had not been properly made, and failure to have a member of the train crew stationed on the leading car of a cut of cars which was being pushed into the storage track.

Respectfully submitted,

W. J. PATTERSON,

Director.