Inv-2036

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

NEW YORK CENTRAL RAILROAD

TOMKINS COVE, N.Y.

JANUARY 28, 1936

INVESTIGATION NO. 2036

SUMMARY

Railroad:	New York Central
Date:	January 28, 1936.
Location:	Tomkins Cove, N. Y.
Kind of accident:	Derailment
Train involved:	Passenger
Train number:	No. 9
Engine number:	3302
Consist:	6 cars
Speed:	55-60 m.p.h.
Track:	Initial derailment occurred on 1°42' curve, final derailment 1.7 miles beyond on tangent track. Grade level.
Weather:	Clear
Time:	4:30 a.m.
Casualties:	1 killed and 6 injured
Cause:	Large lump of coal and slate lying against, or on high rail of curve.

March 18,1936.

To the Commission:

On January 28, 1936, there was a derailment of a passenger train on the New York Central Railroad at Tomkins Cove, N. Y., which resulted in the death of 1 employee and the injury of 2 passengers and 4 employees. This accident was investigated in conjunction with representatives of the New York State Public Service Commission.

Location and method of operation

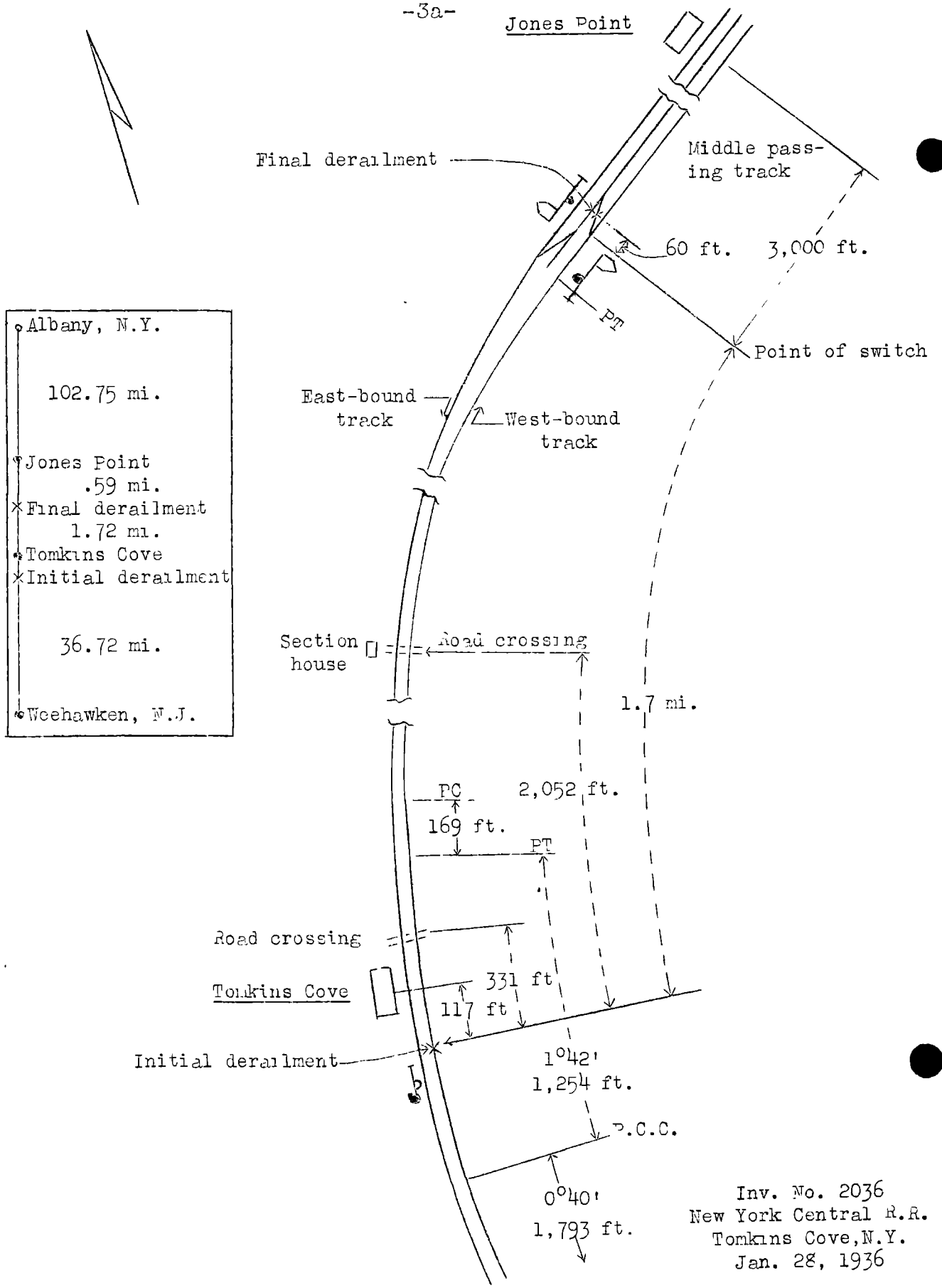
This accident occurred on that part of the River Division which extends between Weehawken, N. J., and Albany, N. Y., a distance of 141.78 miles. In the vicinity of the point of accident this is a double-track line over which trains are operated by time table, train orders, and an automatic block-signal system. The initial derailment occurred at a point 117 feet east of the station at Tomkins Cove, while the final derailment occurred 1.7 miles farther west, at the east switch leading to a middle passing track at Jones Point, a facing-point switch for west-bound trains; approaching the initial point of derailment from the east, there is a compound curve to the right consisting of a 0°40' curve for a distance of 1,793 feet and then a 1°42' curve for a distance of 1,254 feet, the derailment occurring at about the center of this latter portion of the curve. The track then consists of a succession of tangents and curves to the switch, located on tangent track. The grade is principally level, there being but two points between the initial and final points of derailment at which it is slightly ascending for west-bound trains.

From the initial point of derailment to the east switch of the middle siding at Jones Point, the track is laid with 115-pound rails, 33 feet in length, with 20 treated oak and yellow pine ties to the rail length, double-spiked and tieplated; west of the switch it is laid with 105-pound rails and is single-spiked. The track is well maintained.

The weather was clear, with a strong wind blowing snow, at the time of the accident, which occurred at 4:30 a.m.

Description

Train No. 9, a west-bound passenger train, consisted of 3 baggage cars, 1 mail car, 1 combination car and 1 coach, all of steel construction, hauled by engine 3302, and was in charge of Conductor Rodman and Engineman Cole. This train departed from Weehawken, N. J., its initial terminal, 36.72 miles from Tomkins Cove, at 3 a.m., on time, and left West Haverstraw, 3.43 miles from Tomkins Cove, at 4:21 a.m., 14 minutes late, being derailed at Tomkins Cove while traveling at a speed estimated to have been between 55 and 60 miles per hour.



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The engine stopped on its right side in reverse position, across the middle and east-bound tracks, 559 feet beyond the switch, while the tender stopped on its side in reverse position 50 feet beyond the engine on the right side of the west-bound track. The first car remained upright and stopped between the west-bound track and the tender; the second car was derailed at an angle to the right; the front truck of the third car also was derailed. The employee killed was the engineman, and those injured were the fireman, conductor and two baggagemen.

Summary of evidence

Conductor Rodman stated that he was in the rear car of the train, which was traveling about 60 miles per hour, when he felt several jolts as the train reached the east end of the middle track at Jones Point; he had noticed nothing unusual prior to that time. After the accident he found the switch points in good condition, properly lined for the main track, but from the frog westward the middle track was completely torn out.

Flagman Geerdes had noticed nothing unusual in the handling of the train and estimated the speed to have been about 55 miles per hour at the time of the accident. On his way back to flag after the accident he observed that the planks had been torn up at the road crossing near the section house located 1,935 feet west of the station at Tomkins Cove, and the planks at the crossing near Tomkins Cove were also torn up to a slight extent.

Head Brakeman Roach and Baggagemen Blake and Menzel noticed nothing unusual prior to the time of the final derailment. Baggagemen Menzel, who was in the second car, stated that he noticed nothing wrong until the air brakes were applied.

Assistant Supervisor of Track Sahm stated that on his arrival at the scene at about 6:30 a.m., he examined the east switch of the middle siding and found the switch points in normal position for a main track movement, but the block was bent and a rail at the frog was broken. He then walked eastward and found marks on the ties on the left sides of the rails which appeared to be flange marks. These marks appeared intermittently at points where the ties were clear of snow and indicated that only one pair of wheels had been derailed. The planks at the crossing at the section house had been torn out, and were badly splintered and scattered along the track for a distance of 440 feet, while

the crossing planks just west of the station at Tomkins Cove also bore evidence of recent flange marks. At a point a short distance east of the station at Tomkins Cove there were marks on the ball of the left rail indicating that a wheel flange had passed over the rail and then dropped down on the outside and adjacent to the mark which first appeared on the ball of the rail was a piece of what is called "bony" or refuse coal. It was lying about 18 inches from the rail and there was evidence of this piece of coal having been crushed on the rail, some of the crushed material being on top of the rail and some being found on the gauge side. There were no marks of derailment east of this point, and it was the opinion of Assistant Supervisor of Track Sahm that a large piece of this coal had been lying against or on top of the rail and caused the lead engine-truck wheel to mount the rail.

Road Foreman of Engines Docley stated that on examining the damaged equipment at the scene of accident he found the throttle half open, the brake valve in service lap position and the speed recorder indicated a speed of 60 miles per hour at the time of accident. He examined the engine-truck wheels and found the flanges in good condition; the flange on the left wheel was worn but not to the condemning limit, and the lateral on the driving wheels and trailer-truck wheels was well within prescribed limits. He was of the opinion that the front pair of engine-truck wheels were the first to be derailed, as the flange marks on the ties varied from 4 to 12 inches from the rails. If the rear pair of wheels had been derailed first, the flange marks would have been much closer to the rails as the rear wheels could not move away from the rail more than 6 inches without striking against the crosshead and guides, in which case considerable damage would have been done to these parts and it would have been noticed before the train was finally derailed at Jones Point.

Inspection of the track by the Commission's inspectors showed the first mark of derailment to be a flange mark on the left or high rail of the curve at a point 117 feet east of the station at Tomkins Cove; this mark continued diagonally on the ball of the rail for a distance of 27 feet. From this point flange marks continued intermittently on the ties from 4 to 12 inches on the outside of the left rail and on the gauge side of the right rail to a point a short distance beyond the east switch of the middle passing track at Jones Point, a distance of 1.7 miles, where the final derailment occurred. At the point of initial derailment a piece of "bony" or refuse bituminous coal was found on the outside of the high rail; about four-fifths of this piece of refuse consisted of slate, and the piece measured

approximately 5 by 9½ by 13¼ inches and weighed 23 pounds. A considerable amount of this material was found crushed on top of the rail and also on the gauge side. Inspection of the equipment disclosed nothing that could have contributed to the cause of the accident.

Discussion

The evidence indicates that a piece of refuse coal had been lying against or on top of the high rail of a curve at Tomkins Cove and that it caused the left front engine-truck wheel to mount the rail and become derailed; the engine then continued with only one pair of wheels derailed, apparently without the engineman's knowledge, until it encountered the east switch of the middle passing track at Jones Point, a facing-point switch for west-bound trains, the final derailment occurring at this point.

Conclusion

This accident was caused by a piece of refuse coal, composed principally of slate, lying against or on top of the high rail of a curve.

Respectfully submitted,

W. J. PATTERSON,

Director.