

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2546
THE ILLINOIS CENTRAL RAILROAD COMPANY
REPORT IN RE ACCIDENT
NEAR CORINTH, MISS., ON
NOVEMBER 23, 1941

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SUMMARY

Railroad: Illinois Central
Date: November 23, 1941
Location: Corinth, Miss.
Kind of accident: Derailment
Train involved: Passenger
Train number: 10
Engine number: 2413
Consist: 12 cars
Estimated speed: 55-70 m. p. h.
Operation: Timetable, train orders and
automatic block-signal system
Track: Single; tangent; 0.2 percent
ascending grade northward
Weather: Cloudy
Time: About 4:54 p. m.
Casualties: 3 killed; 113 injured
Cause: Broken rail, as result of presence
of transverse fissure

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2546

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS
UNDER THE ACCIDENT REPORTS ACT OF MAY 6, 1910.

THE ILLINOIS CENTRAL RAILROAD COMPANY

January 16, 1942.

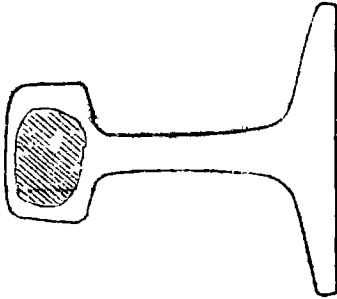
Accident near Corinth, Miss., on November 23, 1941, caused
by broken rail, as result of presence of transverse
fissure.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

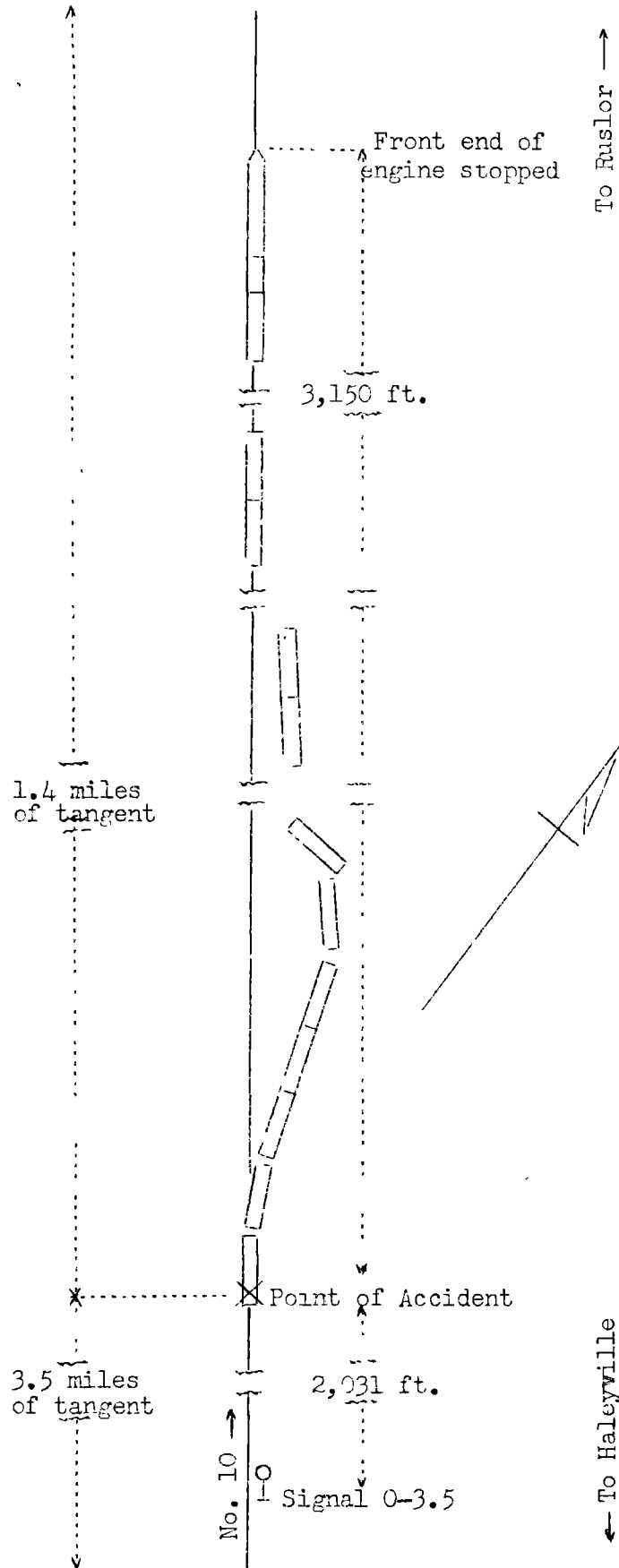
On November 23, 1941, there was a derailment of a passenger train on the Illinois Central Railroad near Corinth, Miss., which resulted in the death of 2 passengers and 1 dining-car waiter, and the injury of 87 passengers, 5 Pullman employees, 1 railroad traffic agent, 18 dining-car employees, 1 train porter and 1 train-service employee.

¹Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Transverse fissure involved covered covered about 75 percent of the cross-sectional area of the head of the rail.

o	Ruslor, Tenn.	1.50 mi.
o	Corinth, Miss.	1.69 mi.
X	Point of Accident	4.21 mi.
o	Strickland, Miss.	36.10 mi.
o	Red Bay, Ala.	36.50 mi.
o	Haleyville, Ala.	



Inv-2546
 Illinois Central Railroad
 Corinth, Miss.
 November 23, 1941

Location of Accident and Method of Operation

This accident occurred on that part of the Birmingham District extending between Haleyville, Ala., and Ruslor, Tenn., a distance of 80 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by timetable, train orders and an automatic block-signal system. The accident occurred at a point 1.69 miles south of Corinth. As the point of accident is approached from the south there is a tangent 3.5 miles to the point of accident and 1.4 miles beyond. The grade for northbound trains is 0.2 percent ascending 928 feet to the point of accident and 162 feet beyond.

The track structure consists of 90-pound rail, 33 feet in length, laid on an average of 20 ties to the rail length; it is fully tieplated, single-spiked, equipped with 6 rail anchors to the rail length, and ballasted with 12 to 14 inches of slag on top of 4 inches of gravel. In the vicinity of the point of accident the track is laid on a fill, the maximum height of which is 28 feet.

Automatic signal O-3.5, which governs northward movements, is located 2,031 feet south of the point of accident.

The maximum authorized speed for the train involved is 70 miles per hour.

Description of Accident

No. 10, a north-bound first-class passenger train, consisted of engine 2413, of the 4-8-2 type, one mail car, one express car, one baggage car, three coaches, two dining cars, three Pullman sleeping cars and one Pullman sleeping-observation car, in the order named. All cars were of steel construction. This train departed from Haleyville, 78.5 miles south of Corinth, at 3:22 p. m., according to the dispatcher's record of movement of trains, 32 minutes late, departed from Red Bay, 42 miles south of Corinth and the last open office, at 4:11 p. m., 29 minutes late, passed signal O-3.5, which displayed a proceed indication, and while moving at a speed estimated as between 55 and 70 miles per hour it was derailed by a broken rail.

The engine, tender and first car remained coupled and were not derailed. The front end of the engine stopped 3,150 feet north of the point of derailment. The knuckle of the rear coupler of the first car was broken. The second and third cars remained coupled and were not derailed but were separated from the first car by a distance of about 1,600 feet. The rear coupler of the third car was broken. The fourth car stopped

upside down at the bottom of the fill, with its front end 30 feet east of the track and 900 feet north of the point of derailment. The body was bent, the roof damaged, and several windows were broken. The fifth and sixth cars stopped down the embankment on their right sides and in line with the fourth car and immediately behind it. Their bodies were bent, their roofs damaged, and several windows broken. The seventh car, a dining car, was detached and stopped on its right side at the bottom of the fill, parallel to the track and 100 feet east of it, with its front end 535 feet north of the point of derailment. It caught afire and was destroyed. The eighth car stopped at the bottom of the fill and leaned toward the east at an angle of 45 degrees, with its front end 100 feet east of the track, 15 feet south of the seventh car and 445 feet north of the point of derailment. The interior and the roof of this car were considerably damaged. The ninth car was headed down the embankment, stopped in line with the eighth car, leaned toward the east at an angle of 60 degrees, with its front end 80 feet east of the track; and was considerably damaged. The tenth car was headed down the embankment, stopped in line with the ninth car, leaned toward the east at an angle of 60 degrees, with its front end 50 feet east of the track, and was considerably damaged. The eleventh car was headed down the embankment and stopped almost upright, with its front end just south of the tenth car and 8 feet east of the track, and its rear end on the roadbed. This car was considerably damaged. The twelfth car stopped upright on the roadbed, with all wheels derailed except the left rear wheel and with the rear end at the point of derailment. This car was somewhat damaged. The track was torn up a distance of 410 feet north of the point of derailment and was badly damaged an additional distance of 450 feet.

The weather was cloudy at the time of the accident, which occurred about 4:54 p. m.

The train-service employee injured was the conductor.

Data

The rail involved was a 33-foot, 90-pound rail, heat No. 71562, Letter C, and branded "9020 O. H. Tennessee A. R. A. -A-3-1924." It was laid in the track in May, 1924.

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 12.2 trains.

Discussion

No. 10 was moving at an estimated speed of 55 to 70 miles per hour, in territory where the maximum authorized speed was 70 miles per hour, when the fourth car and the eight cars to the rear of it became derailed. Prior to the time of the accident, the engine and cars had been riding smoothly, and there was no indication of defective track or equipment, nor of any obstruction on the track. The last automatic signal that No. 10 passed displayed proceed. As the engine passed over the point where the accident occurred, the enginemen did not feel any abnormal condition of the track, and their first knowledge of the accident was the emergency application of the brakes which resulted from the derailment. As soon as the engineer observed that his train had parted, he released the engine brakes and opened the throttle in order to prevent the rear portion overtaking the front portion. The baggageman, who was in the third car, did not feel any unusual motion of the car as it passed the point where the derailment occurred. The first knowledge of the derailment which was had by the conductor and the porter, who were in the fifth car, was the overturning of that car.

Soon after the accident occurred, a rail on the east side of the track was found broken into numerous pieces, 34 of which were recovered and constituted about 29 feet of the 33-foot rail section. The first break occurred between two ties at a point 25-1/4 inches north of the receiving end of the rail and 10 inches north of the bonding connection. This piece of rail remained in its normal location. A transverse fissure covering about 75 percent of the cross-sectional area of the head was found at the first break. Wheel marks at this break indicated that the derailment occurred at this point. Four other transverse fissures, each of which covered about 10 percent of the cross-sectional area of the head, were found in the broken rail. All breaks except the first appeared to have occurred during the derailment. Apparently, the rail became broken when the train was passing over it.

On the day prior to the day of the accident, the track at the point involved had been inspected twice by the section gang and no defective condition was found. The fissure at the first break had not progressed to the surface at any point and prior to the accident its presence could not be detected by visual inspection. A detector car was last operated over the track involved on February 7, 1941, at which time four defective rails were found but none was within a distance of 1 mile of the point where the accident occurred.

Cause

It is found that this accident was caused by a broken rail, as a result of a transverse fissure.

Dated at Washington, D. C., this sixteenth day of January, 1942.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.