## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS RAILWAY, NEW YORK CENTRAL LINES, AT LOCKLAND, OHIO, ON MAY 15, 1931.

June 18, 1931.

To the Commission:

On May 15, 1931, there was a derailment of a passenger train on the Cleveland, Cincinnati, Chicago and St. Louis Railway, New York Central Lines, at Lock-land, Ohio, which resulted in the death of 1 other person not trespassing and the injury of 1 other person not trespassing, and 4 employees.

Location and method of operation

This accident occurred on the Cincinnati Terminal Division of the Cincinnati Division, extending between Ivorydale Junction and Gano, Ohio, a distance of 10.7 miles. This is a double-track line over which trains are operated by time-table, train orders, and an automatic block-signal system. The accident occurred at a point approximately 890 feet west of the station at Lockland; approaching this point from the west, there is a compound curve to the left 2,311 feet in length, consisting of 791 feet of 20 24' curve and 1,520 feet of 20 curve, this is followed by tangent track for a distance of 2,434.9 feet, and the accident occurred on the 20 portion of the curve at a point 390 feet from its eastern end. Beginning at the western end of the curve, the grade for eastbound trains is 0.257 per cent ascending for a distance of 1,900 feet, followed by a vertical curve 400 feet in length, and then 0.348 per cent descending grade for 900 feet, the derailment occurring on the vertical curve near its western end.

The track is laid with 127-pound rails, 39 feet in length, with an average of 24 treated soft wood ties to the rail-length, double-spiked and tie-plated. The track was ballasted with crushed stone to a depth of about 9 inches and is well maintained.

The weather was clear at the time of the accident, which occurred about 6.01 p.m.

## Description

Eastbound passenger train No. 124 consisted of 1 baggage car, 2 coaches, 5 Pullman sleeping cars, and 1 dining car, in the order named, all of steel construction, hauled by engine 6521, and was in charge of Conductor Thomas and Engineman Lee. This train departed from Cincinnati at 5.30 p.m., on time, passed Ivorydale Junction, 4.8 miles west of Lockland, at 5.56 p.m., according to the train sheet, six minutes late, and was approaching the station at Lockland when it was derailed while traveling at a speed estimated to have been between 40 and 45 miles per hour.

The engine, tender, first two cars, and one wheel of the front truck of the third car were derailed to the right, the engine coming to rest on its left side practically in a reversed position at a point 990 feet beyond the initial point of derailment. The tender came to rest on its left side, parallel and to the left of the eastbound track, but remained coupled to the engine, forming a V-shape, within which the first car was wedged in an upright position; the second car also remained in an upright position. None of the remaining equipment was derailed or damaged, and all the equipment remained coupled except between the tender and the first car. engine struck a two-story frame house located on the right side of the eastbound track, near the right-of-way, completely demolishing a lean-to summer kitchen of this building. The other persons not trespassing who were killed and injured were in this building, and the employees injured were the engineman, fireman, baggageman, and news agent.

## Summary of evidence

Engineman Lee stated that as the engine rounded the curve just before entering the straight track, at a speed of about 40 or 45 miles per hour, he felt the trailer truck leave the rails and drop onto the ties and immediately applied the air brakes in emergency, the truck running along the ties until the engine finally turned over. While he could not state definitely which truck was first derailed, he was of the opinion that it was the trailer truck, because with a derailed engine truck he did not think the engine would have traveled as far as it did before turning over. Engineman Lee stated that he inspected the engine before departing from Cincinnati and found it in good condition.

Fireman Heard stated that approaching a street crossing west of the station at Lockland he thought he felt the trailer truck jump the track and that the engineman immediately applied the air brakes in emergency, stating that the train was not traveling at a high rate of speed — not more than 20 miles per hour. He later stated, however, that he saw dirt and stone flying anead of the engine as it passed over the crossing, which would indicate that it was the front truck that was the first to be derailed. He also modified his former statement as to speed and said that the train was traveling at a good rate of speed.

Conductor Thomas stated that approaching Lockland he was riding in the fifth car and that the train was traveling at a speed of about 45 miles per hour when the air brakes were applied in emergency and the train was derailed, and he estimated that the train came to a stop about 8 or 10 seconds later. He made an inspection of the train after the accident and found no defects that might have contributed to the occurrence of the accident. Conductor Thomas stated that the air brakes had been tested and found to be working properly.

Baggageman Falvey, Brakeman Herrigel, and Flagman Lyons, estimated the speed of their train at the time of the accident to have been about 40 miles per nour. Flagman Lyons stated that he inspected the track after the occurrence of the accident and was of the opinion that the derailment was due to something having been placed on the rail.

Master Mechanic Karibo and Assistant Master Mechanic Mellon stated that they were riding on the left side of the second car in train No. 124 at the time of the accident, and the first indication of anything wrong was an application of the air brakes which appeared at first to be a service application, but almost instantly there was a severe application and the car started to sway, the train coming to stop in a very short time tween They estimated the speed of the train to have been 40 and 45 miles per hour at the time of the accident. After assisting the injured men, Master Mechanic Karibo walked back over the track, and at a street crossing about 850 feet west of the station he found wheel marks on the track, and at a point about 60 feet west of this crossing he found some crushed bone on top of the south rail. At this point Assistant Master Mechanic Mellon joined him and they scraped the crushed bone off the rail, saving

it and picking up the pieces; this bone covered an area of about 12 inches. They did not feel, however, that the bone was responsible for the accident. They started back toward the train and a boy by the name of Sharpe joined them, and as they continued, this boy saw something lying against a post of the right-of-way fence, which was found to be a spike; this spike was about 5 feet south of the ends of the ties. The spike appeared to be shiny and was mashed for one-half or two-thirds its length and the head was crushed, indicating that the spike had been placed lengthwise on the rail with the pointed end toward an approaching eastbound train, and that a wheel or wheels had passed over it. There were no flange marks on the spike nor any mark on the rail indicating that the spike had been there, nor was there anything to indicate that the spike had been placed among the bones. Master Mechanic Karibo stated that there was no doubt in his mind that the bone and spike had been placed on the rail, and Assistant Master Mechanic Mellon stated that it was apparent to him that these were the cause of the derailment. Master Mechanic Karibo stated that later they returned to the point of derailment and found that the spikes in the ties on the outside of the south rail and the gauge side of the north rail were marked, showing that the wheels had derailed to the right, and it appeared that only the front wheels of the pony truck were derailed at that point. Measurements showed that the spike was found 16 feet west of the first mark of derailment and that the crushed bone was 22 feet west of the first mark of derailment. Inspection of the track for a distance of 200 feet west of the point at which the bone was found disclosed no marks indicating that anything had been dragging from the train. Assistant Master Mechanic Mellon made an examination of the flanges of the engine wheels after the accident and these were found in good condition and he found nothing to cause the derailment. Due to mud and dirt, he could not see any mark on the wheels indicating that they had struck a spike.

About one hour previous to the occurrence of the accident Messrs. Karibo and Mellon were riding on westbound train No. 47 through Lockland and as they passed through the vicinity in which the accident occurred, Asst. Master Mechanic Mellon noticed three boys near the eastbound track. The youngest boy, about 5 years of age, was standing between the rails of the eastbound track, and the other two, about 10 years of age, were just south of/that track, and they were looking at the wheels of train No. 47, and Asst. Master Mechanic Mellon remarked at the

time about these boys playing on the track. After discovering the cause of the derailment, he immediately connected it with the fact that these boys had been playing in that vicinity.

Walter Humphrey, six years of age, who lived on Arlington Street, which parallels the tracks on the south, was playing with his brother Alfred and Voyd Hasty on the track opposite their home a short time before the occurrence of the accident, and he stated that he placed a spike lengthwise on the outside rail of the eastbound track pointing westward, with some bones west of the spike. He and his brother then returned to their own yard and were playing in a playhouse when the accident occurred. Alfred Humphrey, 12 years of age, stated that he was with his brother Walter when he placed the spike and bones on the rail.

Voyd Hasty, 7 years of age, who lives on Longworth Street, which parallels the tracks on the north, stated that he was with the Humphrey boys when the spike and bones were placed on the rail; he said he kicked the spike off the rail twice and then went across the street to play with another boy and did not see Walter Humphrey place the spike and bones on the track the third time. The reason the spike was placed on the rail was to see if a train would mash it flat.

Not only did the inspection of the track west of the initial point of derailment disclose no marks on the rail or ties, nor any indication that any part of the train had been dragging, but track measurements taken soon after the occurrence of the accident showed the alignment, gauge, elevation, and surface to be in first-class condition, and inspection of the engine and cars disclosed no defects that could have contributed to the cause of the accident.

## Conclusions

This accident was caused by a track spike having been placed on the outside rail of the eastbound track by a six-year old boy.

This spike was found lying south of the track against a post of the right-of-way fence and about 16 feet west of the first mark of derailment; it had been mashed for a distance of one-half its length and the

head was crushed, and it appeared to be bright and shiny. Crushed bone was also found on top of the south rail at a point about 22 feet west of the first mark of derailment. The six-year old boy had been playing on the tracks with his older brother a short time before the passage of train No. 124 and confessed to having placed the spike and bone on the rail, stating that he placed the spike lengthwise on the rail, with its point toward an approaching eastbound train, with the bone west of the spike.

The evidence indicates that the front wheels of the engine truck were the first to be derailed, until a trailing-point crossover leading to the westbound track was encountered, resulting in the entire engine and following cars being derailed.

All of the employees involved were experienced men, and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.