BUREAU OF SAFETY

REPORT NO. 1991

Railroad:	Missouri Pacific
Date:	June 33, 1935.
Location:	Little Rock, Ark.
Kind of accident:	Derailment
Train involved:	Freight
Train number:	First No. 76
Engine number:	1535
Consist:	67 cars and caboose
Speed:	40-45 m.p.h.
Track:	$2^{\circ}30'$ curve to left
Weather:	Clear
Time:	13:30 p.m.
Casualties:	3 killed; 4 injured
Cause:	Spikes placed on track rails

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN ACCIDENT ON THE MISSOURI PACIFIC RAILROAD NEAR LITTLE ROCK, ARK., ON JUNE 23, 1935.

July 19, 1935.

To the Commission:

On June 23, 1935, there was a derailment of a freight train on the Missouri Pacific Railroad near Little Rock, Ark., which resulted in the death of 3 trespassers, and the injury of 1 employee and 3 trespassers.

Location and method of operation

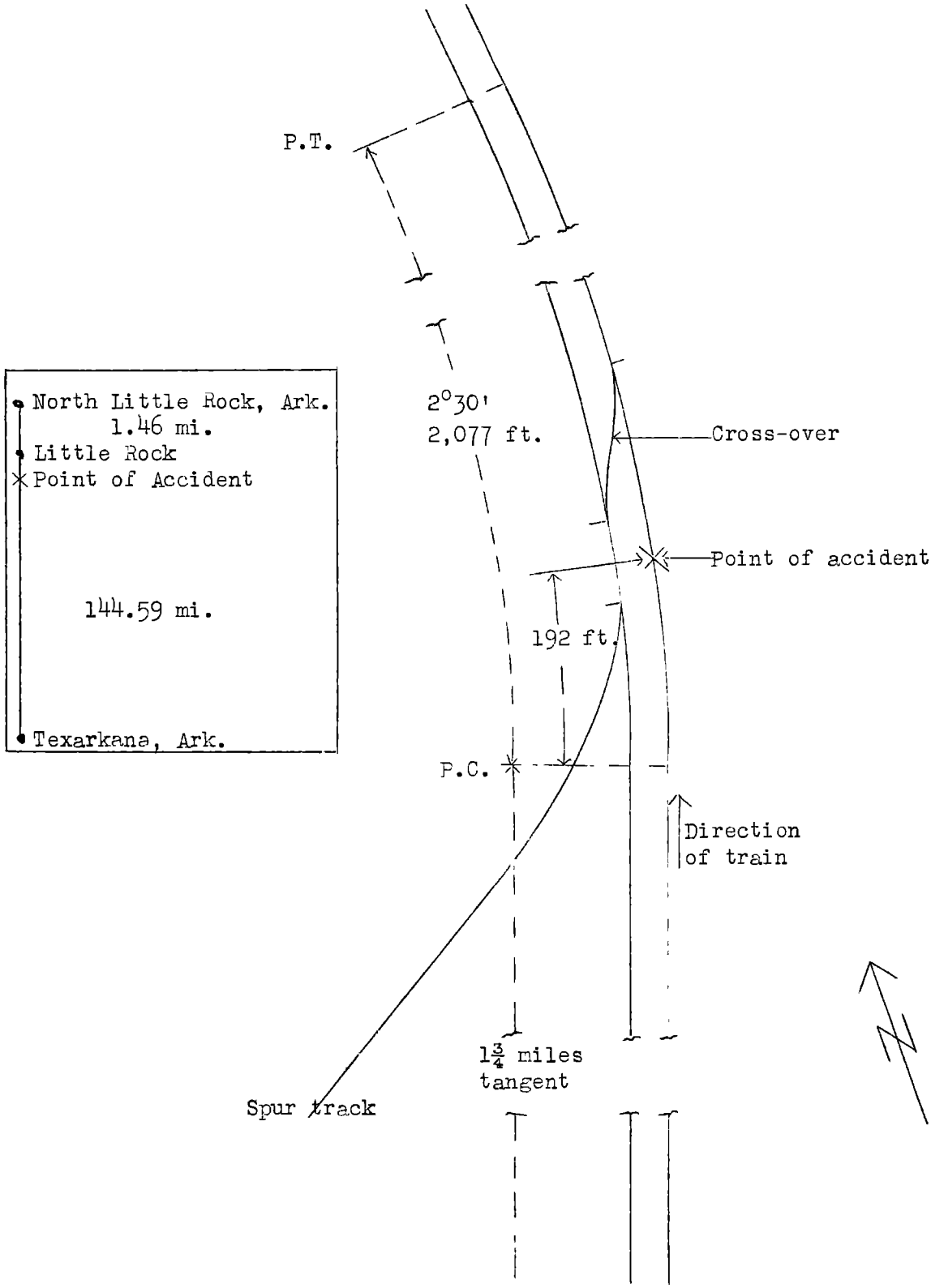
This accident occurred on the Little Rock District of the Arkansas Division, extending between Texarkana and North Little Rock, Ark., a distance of 146.05 miles; in the vicinity of the point of accident this is a double-track line over which trains are operated by time table, train orders, and an automatic block-signal system. The accident occurred on the north-bound main track at a point about 2.6 miles south of Little Rock; approaching this point from the south, the track is tangent for more than 1¾ miles, followed by a 2°30' curve to the left 2,077 feet in length, the accident occurring on this curve at a point 192 feet from its southern end, where the grade changes from level to 0.6 percent ascending for north-bound trains.

The track is laid with 90-pound rails, 33 feet in length, with an average of 30 treated ties to the rail length, fully tieplated, single spiked, and ballasted with gravel to a depth of 12 inches. The track is well maintained. The maximum permissible speed for freight trains is 45 miles per hour.

The weather was clear at the time of the accident, which occurred about 12:30 p.m.

Description

Train First No. 76, a north-bound second-class freight train, consisted of 67 cars and a caboose, hauled by engine 1535, of the 2-8-2 type, and was in charge of Conductor Murray and Engineman Young. This train passed QQ Tower, 28.01 miles south of Little Rock, at 11:44 a.m., according to the train sheet, 2 hours and 9 minutes late, and was derailed while approaching Little Rock at a speed estimated to have been between 40 and 45 miles per hour.



Inv. No. 1991
Missouri Pacific R.R.
Little Rock, Arkansas
June 23, 1935

Engine 1535, its tender, the first 27 cars, and the forward truck of the twenty-eighth car were derailed. The engine stopped on its right side at a point 410 feet north of the point of derailment; the first 26 cars were piled up within a distance of about 150 feet, obstructing both main tracks, and 24 of them were destroyed by fire that broke out immediately after the accident. The employee injured was the fireman.

Summary of evidence

Engineman Young stated that approaching Little Rock the speed was between 40 and 45 miles per hour; he was on his seat box and the first he knew of anything wrong was when the front end of the engine jumped or was lifted upward, whereupon he immediately applied the air brakes in emergency and then the engine turned over. The air brakes had been tested and worked properly en route and prior to the accident there was nothing unusual about the trip. He did not see any one on the ground in the vicinity of the point of accident, nor did he notice any obstruction on the rails. Fireman Haskett was on his seat box maintaining a lookout ahead, but he did not see anyone nor did he see any obstruction on the rails. Fireman Haskett said that when the front end of the engine was raised, the sensation was similar to that which occurs when an engine is run upon a coal pick in order to repair a stuck wedge. Head Brakeman Dillon was in the brakeman's cabin on the tank and was not aware of anything wrong until the accident occurred; he estimated the speed of the train to have been about 45 miles per hour.

Conductor Murray, Swing Brakeman Holloway and Flagman Thompson, who were in the caboose at the time of the accident, estimated the speed to have been between 40 and 45 miles per hour. After the accident the conductor, assisted by some bystanders, found three spikes, two of which had been run over, and there was a scarred place on top of the rail where the spikes had been placed. One spike that the conductor found was lying between the main tracks about 20 or 30 feet north of the scarred place on the rail, while another spike found by a bystander was picked up on the east side of the north-bound track; these two spikes were mashed, having been run over. The third spike he merely saw in the hand of a man who gave it to someone else. In his opinion the accident was caused by spikes having been placed on the rail.

Section Foreman Jones stated that he last inspected the track on the day prior to the accident and found it to be in good condition. An extra gang was working at this point and had been performing general repair work, raising the track, putting in ties, etc., for a couple of days, and during the morning of the day prior to the accident he had carried out an

unopened keg of new spikes and delivered them to the extra gang foreman. After the accident Roadmaster Ward showed him the spikes that had been run over and in his opinion the accident was caused by spikes being placed on the rail.

Extra Gang Foreman Smith stated that work of spacing ties, lining and surfacing the track, leveling, etc. had been performed by the extra gang and that when he left at the completion of the work on the day prior to the accident it was in good condition. Material in the form of plates and ties had been distributed ahead of the track work being performed, but the spikes were being used right out of the keg that the section forman had delivered; this keg, with some spikes in it, was left in the vicinity of where his gang had been working.

Roadmaster Ward stated that he arrived at the scene of the accident about 1 p.m., and his inspection disclosed that spikes had been placed on the track. There was a new indentation on top of the east rail, and about $2\frac{1}{2}$ inches north of the first indentation there was another one, followed by a third one, measuring about 5/8 inch and $\frac{1}{2}$ inch in length, respectively, and 3/16 inch in depth. At a point 34 feet 6 inches north of the first indentation on the east rail, there was a flange mark on top of the rail about $1\frac{1}{2}$ inches from the gauge side which ran diagonally toward the outside and dropped off within a distance of 3 feet 1 inch. Starting at a point 9 feet 5 inches farther north, there were flange marks on the heads of spikes for a distance of 4 successive ties and then marks appeared on the tieplates of the next 31 ties, following which they were on the outside edges of the tieplates of the next 7 ties and then they appeared on the next 24 ties about 9 inches outside of the gauge of the rail, beyond which point the track was torn up; the total distance covered by the marks, from the point of derailment northward to where the track was torn up, was 121 feet, or for 71 successive ties. There were marks on the opposite side of the track for most of this distance, consisting first of broken angle-bar bolts and then marks on the ties. These marks apparently were made by the pony-truck wheels of the engine, which seemed to have been the only wheels derailed, and when they reached the turnout rail and frog of the trailing-point cross-over switch, located 215 feet north of the point of derailment, the engine swerved to the right and tore out the east rail, resulting in the final derailment. Roadmaster Ward said the two mashed spikes that had been run over by the train were turned over to him, and that they were new Missouri Pacific spikes. Each of them had been flattened as a result of having been run over, and in his opinion the accident was caused by these two spikes having been placed on the track. Roadmaster Ward also said there was a keg near the telephone booth, opposite the

point of derailment, in which there were some new spikes.

Master Mechanic Hanna made a careful inspection of the engine but found no defects which could have contributed to the occurrence of the accident. Discoloration on the rail indicated where the spikes had been lying when run over by the train, and in his opinion the spikes were the cause of the accident.

Assistant Chief Special Agent Monroe stated that several boys were seen running away from the point where the accident happened, about 5 minutes before its occurrence. After the accident four boys were apprehended, one of whom, 16 years of age, at first admitted and then denied that they placed the spikes on the track. Agent Monroe said that this boy at first said that he and two other boys placed the spikes on the track, one spike on each rail, for the purpose of getting some freight or valuables out of the wreck, and that he held to his story until one of the other boys whom he implicated was apprehended and brought face to face with him, following which the boy denied all of his original story and said that none of them had placed the spikes on the track.

Careful examination of the track by the Commission's inspectors for a distance of about $\frac{1}{2}$ mile south of the point of accident showed it to be in good condition and there was no indication of anything dragging, while marks at the point of derailment were found to be similar to those previously described by the roadmaster. The two mashed track spikes were new spikes, not having been used in the track, and they had been run over when lying lengthwise on the rail, with the points towards the approaching train.

Discussion

As a result of the investigation it was developed that two new Missouri Pacific standard track spikes had been placed on the track, one on each rail, with the points toward the approaching train, and that they were run over in that position, resulting in the pony truck of the engine being derailed, in which position it followed the rails until it reached the turnout rail and frog of the trailing-point cross-over switch, located 215 feet north of the point of derailment, where the engine was forced to the right and tore out the east rail, resulting in the final derailment. These spikes undoubtedly had been taken from an open keg partly filled with new spikes which had been left opposite the point where the accident occurred by an extra gang engaged in track-repair work during the previous day. The rules and instructions for the maintenance of way and structures provide that foremen and others

will be held strictly responsible for all tools and materials left in their charge, and that all tools and supplies, when not in use, must, as far as possible, be kept locked in the tool box or tool house provided for the purpose, or where they can be carefully stored. The keg of spikes from which the spikes which caused this accident were thought to have been obtained, should have been disposed of according to rule.

Conclusions

This accident was caused by track spikes being placed on the track, one on each rail of a curve.

Respectfully submitted,

W. J. PATTERSON,

Director.