INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN ACCIDENT ON THE SOUTHERN RAILWAY SYSTEM AT KINSLER, S. C., ON DECEMBER 19, 1932.

January 19, 1933.

To the Commission:

On December 19, 1932, there was a derailment of a freight train on the Southern Railway System at Kinsler, S. C., which resulted in the death of two trespassers and the injury of five trespassers.

Location and method of operation

This accident occurred on that part of the Columbia Division which extends between Columbia and Hardeeville, S.C., a distance of 130.6 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The accident occurred at a point approximately 40 feet south of a facing point switch leading to a spur track, known as Kinsler. Approaching this point from the north, there are 2,780 feet of tangent track, this tangent extending for some distance beyond. The grade is level at the point of accident. The spur track is located on the east side of the main track, has a capacity of seven cars, and at the time of the accident four empty cars were stored on it.

The track is laid with 80-pound rails, 33 feet in length, with 20 hardwood ties to the rail-length, single-spiked, 40 per cent tie-plated, and ballasted with cinders to a depth of 12 inches. The track is in good condition and well maintained.

The weather was clear at the time of the accident, which occurred about 3.37 p.m.

Description

Southbound second-class freight train No. 53 consisted of 34 cars and a caboose, hauled by engine 4761, and was in charge of Conductor Griffin and Engineman Madden. This train departed from Andrews Yard, Columbia, 4.7 miles north of Kinsler, at 3 p.m., 2 hours and 30 minutes late, according to the train sheet, and was derailed at Kinsler while traveling at a speed estimated to have been between 25 and 30 miles per hour.

The rear truck of the sixteenth car was derailed and missing when the car stopped approximately 365 feet beyond the initial point of derailment, the lead truck remained on the track and the rear end of the car rested on the ground between the main track and the spur track. The following eight cars were derailed and

stopped at various angles to the track, two of them being destroyed while the others sustained heavy damage. One of the cars standing on the spur track was destroyed and another was damaged.

Summary of evidence

Engineman Madden stated that he noticed nothing unusual in the movement of the train up to the time of the derailment, he was operating the train at a speed of about 50 miles per hour when he felt a jerk and on looking back he saw the cars turning over and the brakes applied before he could move the brake-valve handle. On examining the track after the accident the first marks of derailment were found on the ties, between the switch point and the frog; he noticed that the rear truck was missing from under the sixteenth car but could not locate it in the wreckage. The air brakes had been tested before leaving Andrews Yard and functioned properly en route.

Fireman Fennell, Head Brakeman Self and Conductor Griffin observed the train as it rounded curves en route. Fireman Fennell stated that he last looked back over the train on leaving Cayce, approximately 4 miles north of Kinsler, while Conductor Griffin rode on the rear end of the caboose until after the train passed the curves about 1½ miles north of Kinsler and Brakeman Self also looked back over the train in that vicinity, but nothing unusual was noted. On departing from Andrews Yard the entire train pulled by Conductor Griffin and about one-half of the train pulled by Flagman Wilson; their observations were made on the engineman's side of the train and nothing wrong was detected. Examination of the track by Conductor Griffin after the accident revealed nothing wrong with the track and the switch was in good condition.

General Foreman of Car Repairs Dunning stated that he went to the scene of the accident and made an examination of the track and equipment, and was of the opinion that the accident was caused by the breaking of the bottom arch bar on the left side of the rear truck of the sixteenth car, apparently caused by an old defect, concealed and not subject to discovery by ordinary inspection.

Car Inspectors Smith and Antley made the usual air-brake test and a thorough inspection of the equipment of train No.53 before its departure from Andrews Yard and no defects were found. They give particular attention to cars with the type of truck involved in this accident, and in the past quite a number of cracks have been found. Car Inspector Smith examined the broken arch bar after the occurrence of the accident and was of the opinion that it was an old defect, and Car Inspector Antley stated that had this defect been visible they would have discovered its presence.

Examination of the track north of the point of accident by the Commission's inspector disclosed it to be in good condition, well maintained, and there was no evidence of anything having been dragging. The switch leading to the spur track, equipped with a New Century stand, was in good condition with the switch point fitting close to the stock rail. The first mark of derailment was a flange mark on the ball of the east or left rail 40 feet south of the switch point; this mark continued on the ball of the rail a distance of about 6 feet, and was followed by well-defined flange marks on the ties on the east side of the track. At the time of this inspection the ties under the frog had been renewed so no further marks could be seen. Examination of the rear truck of the sixteenth car, Southern 282946, disclosed that the bottom arch bar on the left side was broken at the bend over the front journal box. The break consisted of approximately 50 per cent old defect and apparently could not have been found by the usual inspection. The car had a capacity of 100,000 pounds, with a load limit of 126,000 pounds, and at the time of the accident contained 90,000 pounds of coal.

Conclusions

This accident apparently was caused by a broken arch bar.

Statements of the members of the crew indicated that they were not aware of anything wrong up to the time of the accident, while the track was found to be in good condition and there was no evidence of anything dragging. Examination of the equipment, however, revealed the presence of a broken arch bar, and it is believed that this is what caused the derailment of the train. It had broken as a result of an old defect, not discoverable by ordinary inspection.

Respectfully submitted,

W. P. BORLAND,

Director.