No. 100

In re Investigation of Accident on the Southern Railway Near Davidson, N. C., on January 18, 1914.

February 14, 1914.

On January 18, 1914, there was a derailment of a passenger train on the Southern Railway about one-half mile north of Davidson, N. C., resulting in the death of 2 employees, and the injury of 1 employee and 2 passengers.

After investigation of this accident the Chief Inspector of Safety Appliances reports as follows:

The Taylorsville District of the Winston-Salem Division of the Southern Railway, upon which this accident occurred, is a single-track line, and trains are operated by the time-table and train-order system, no block signals being used. The derailed train was southbound train No. 15, running between Taylorsville and Charlotte, N. C.

On the day of the accident train No. 15, in charge of Conductor Morrison and Engineman Curlee, consisted of locomotive No. 3871 and three coaches, two of which were of wooden construction, while the third had a steel underframe. This train left Taylorsville at 5:10 p. m., left Mooresville, the last telegraph station north of the point of accident, at 8:13 p. m. 40 minutes late, and ran to the point of derailment, a distance of 6.3 miles, in 14 minutes, making one intermediate stop to discharge passengers. At the time of the derailment the speed of this train was about 30 miles per hour.

Approaching the point of derailment from the north there is a long curve to the right, followed by a tangent about 1,000 feet in length, then a three-degree curve to the left, extending nearly to the switch of the siding at Davidson. The train was derailed at a point about 200 feet beyond the northern end of the second curve, at the entrance of a cut about ten feet deep. The locomotive came to rest on its left side, across the track, both the engineman and fireman being killed. The tender was derailed and badly damaged, and one of the coaches was also derailed and damaged to some extent, while the forward trucks of the second coach were derailed. The weather at the time of the accident was clear.

The track was laid with 60-pound steel rails, 30 feet in length, with about 17 [illegible] ties under each rail. It was single spiked, and no tie plates or rail braces were used on the curve on which the derailment occurred. The superelevation of this curve varied from 1 1/2 inches to 3 inches; at the point of derailment it was 2 inches. Examination showed the track to be in good condition and safe for the rate of speed at which this train was running.

Examination of the equipment and running gear of the locomotive and cars showed them to be in good condition, nothing being discovered which in any way could have caused the derailment. There was, however, a mark on the right forward truck wheel of the locomotive which indicated that it had struck some obstruction on the rail. This mark, which was a recent one, was about two inches long and a quarter of an inch wide.

The first mark on the track made by the derailed wheels was on the head of a spike about 300 feet north of where the locomotive stopped. This mark was followed by marks of increasing prominence for a distance of about 75 feet, beyond which point the track was badly torn up by the derailment. On the gauge side of the outside rail of the curve at a point 36 feet north of the marks on the spike head was a mark which indicated that there had been something on the rail and that it had been run over by the locomotive. This mark was near a rail joint. The ends of the rails at the joint were also slightly marked, while south of these marks was a slight diagonal line running toward the outside of the rail, apparently made by a wheel flange.

Search was made to discover the obstruction which apparently had been placed on the rail, and at a point on the outside of the track about 15 feet from the rail joint a section foreman found a track spike, the marks on which indicated that it had been placed lengthwise on the rail with the point facing the approaching train. This spike was again placed on the rail and found to fit the mark at the rail joint. It seemed apparent that when struck by the locomotive the spike had been pushed along a short distance on the top of the rail until it reached the slight opening at the rail joint, where the head of the spike caught and was thus prevented from going beyond that point.

Mr. A. J. Armour, a merchant at Davidson, stated that at about 4:30 p. m., on the day of the accident he met two little girls and a boy walking on the railroad track, the girls being about six and thirteen years of age, while the boy was about ten years of age. After passing them Mr. Armour discovered two pieces of coal on the rails, which he removed. He stated that the younger girl said that the boy placed the pieces of coal on the track. Mr. Armour stated he did not see the children put anything on the track and did not see the spike until after the accident.

Mr. E. W. Oliver, special agent for the Southern Railway, stated that he interviewed the three children met by Mr. Armour and that the younger girl told him that her brother put some coal on the rails. The boy also picked up a spike from the middle of the track and she told him not to put anything else on the rails. The older girl stated that she told her brother not to put anything on the rails, nor did she see him do so. She did not see the spike. The boy was asked if he put any iron on the rails and after some hesitation replied that he did not. He admitted that he put some coal on the rails, but

did not think it was any harm to do so.

This accident is believed to have been caused by the locomotive of train No. 15 running over a track spike which had been placed on the outside rail of the curve. It was not definitely determined how this spike came to be on the rail, there being no positive evidence that this boy placed it there.