

INTERSTATE COMMERCE COMMISSION.

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY COVERING INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE WABASH RAILWAY NEAR WILLIAMSPORT, IND., ON OCTOBER 19, 1922.

December 4, 1922.

To the Commission:

On October 19, 1922, there was a derailment of a passenger train on the Wabash Railway near Williamsport, Ind., resulting in the death of 3 employees, and the injury of 3 employees, 5 mail clerks, and 8 passengers.

Location and method of operation.

This accident occurred on the 2nd District of the Peru Division, which extends between Tilton, Ill., and Peru, Ind., a distance of 101.3 miles, at a point about two miles west of Williamsport, Ind., which is 24.1 miles east of Tilton. In the vicinity of the point of accident this is a single-track line over which trains are operated by time-table, train orders and an automatic block-signal system. About 300 feet west of the point derailment there is a relay box in which are relays controlling the automatic block signals, and 5,100 feet west of that is located automatic block signal 21-13,0, governing the movement of eastward trains.

Approaching the scene of the accident from the west, there is a tangent about 2 miles in length, followed by a 2-degree curve to the left about 900 feet in length, the point of accident being on the curve about 400 feet from its east end. The grade for about 1 mile west of scene of the accident is descending from 0.505 to 0.819 per cent.

The track in the vicinity of the accident was laid with 90-pound rails, 33 feet in length, while four-hole angle bars were used. There were 20 oak ties to the rail, tie-plated and single-spiked, on a bed of about 6 inches of gravel. The elevation on the curve is about 3 inches. The accident occurred at about 11.30 p. m., the weather at the time being clear.

Description.

Passenger train No. 2 consisted of engine 1679, of the 4-6-2 type, 2 steel mail cars, 1 wooden baggage car, 1 steel baggage car, 1 wooden baggage car, 1 wooden combination car, 1 wooden coach, 1 steel chair car and 4 Pullman sleeping cars, in the order named, and was in charge of Conductor Hurlburt and Engineman Schmutz. This train was en route from St. Louis to New York, it left Tilton at 10.42 p. m.,

27 minutes late, and passed West Lebanon, the last open telegraph office, at 11.26 p. m., 32 minutes late, and was derailed about 3.2 miles east of West Lebanon, or 2 miles from Williamsport, while traveling at a speed estimated to have been about 45 miles an hour.

The engine and tender came to rest on their right sides, the front end of the engine being 108 feet to the right of the track after having run a distance of 360 feet from the point of derailment; the two mail cars turned over on their right sides to the right of the track, the forward end of the leading car being about 50 feet from the track. The first baggage car turned over to the right and was destroyed by fire. The second baggage car pushed by to the right of the preceding car and was damaged by fire; it was standing leaning to the right with its front end 66 feet from the track. The following baggage car, combination car and coach were standing leaning to the right and were entirely destroyed by fire. The east truck of the following chair car was derailed and that end of the car badly damaged by fire, the west truck of this car and the four sleepers behind remained on the track. The track was torn up for a distance of about 270 feet. The employees killed were the engineman and two express messengers.

Summary of evidence.

Fireman Henton of train No. 2 stated that the last stop was made at Danville Junction, 21 miles west of Williamsport, and at that time the brakes on the train and engine seemed to be working all right. Signal 21-13,0 displayed a clear indication. He was sitting on the left seat box looking out of the front window and the first intimation of danger he had was when the front end of the engine jumped over to the right, evidently leaving the track. He was thrown up on the boiler head, and he heard the engineman apply the air brakes.

Examination of the track by employees after the accident disclosed that the angle bars had been removed from both sides of the west end of the south rail at the point of accident. One angle bar was lying on the gauge side and one on the outside of the east end of the rail. These angle bars had no marks on them nor were they bent. The nuts had been taken off the angle-bar bolts, and the bolts and nuts, which were found alongside the angle bars, were in good condition, with no marks or dents whatever, the threads being distinct and the washers bright where the nuts had been lately unscrewed. The spikes removed from the inside of the rail were found on the track beside the displaced rail, and bore evidence of having been removed with a claw bar, as the under part of all the spikes found showed where the claw of the puller had come in contact with them, and the spike holes in the ties were square at the top indicating that the spikes had been pulled straight

up. The spikes were not bent nor were the holes in the ties broken or uneven, as they would have been if the spikes had been worked back and forth. The tie plates were all in place and spiked on the outside, the only spikes removed from the outside of the rail were those at the joint which had to be removed in order to remove the angle bars. On account of the forward truck of the chair car standing over the east or the delivering end of the rail, and this car and the car directly ahead having caught fire, it could not be determined whether or not the spikes had been removed for the entire length of the inside of the rail, or whether the angle bars had been removed from the east end of the rail; however, the displaced rail was turned over on its side with the ball towards the north. When the chair car, which came to rest over the delivering end of the displaced rail, was pulled back from the rear end of the car ahead, the displaced rail was caught by some part of the chair car which was dragging and was pulled back away from the rail ahead, and there was no evidence that there were any angle bars attached to its eastern end when it was pulled back, and there were no parts of broken angle bars found among the debris in cleaning up the wreckage.

The first wheel mark shown was on the head of a spike in the fourth tie east of the joint; it looked as though the outer rim of a wheel had struck it a glancing blow. The next tie and the tie plate on it bore flange marks across the top, while all the ties east of this were badly torn and broken. The displaced rail bore three distinct flange marks on the outside base of same, beginning at a point 45 inches from the west end and continuing for a distance of 8 feet, there being no marks on the inside or the top of the rail near the receiving end. Beginning 30 inches from the west end of the rail, there were grease marks and small scars all along the outside of the ball of the rail for almost its entire length; this evidently was caused by the inside of the wheel rubbing outside of the rail before the latter was turned over after the derailment.

The bond wires connecting the displaced rail to the adjoining rail at each end had not been broken and were still intact after the accident happened. They were fastened to the inside of the rail, and the rail could be moved about a foot without displacing them.

The fire evidently started in the first or second car ahead of the combination car. The cause of the fire is unknown, however, all of the wooden cars in the derailment were lighted with gas.

Track Supervisor Harter arrived at the scene of the accident about 2.30 a. m. While repairing the track, he examined the displaced rail, which had been moved in rerailing the cars, and could see no marks upon it in the position in which it was lying, but when the rail was rolled over, slight

marks were found on top or ball of the rail most of its length. This rail was not used in rebuilding the track but was kept for observation. He had been over this particular piece of track during the last 10 days, raising a few joints. He had been over this portion of track again 3 days previously in a motor car and again on a train two days before, and at those times the track apparently was in good shape.

Section Foreman Fisher, who was in charge of the section on which the derailment occurred, stated that he had walked over that part of the track about ten o'clock on the morning of October 19 and that the track was all right then. No work was done on the track that day.

Conductor Shaw of freight train No. 82 stated that his train passed over the track at the point of accident about an hour ahead of train No. 2, and he noticed nothing wrong with the track at that time.

Assistant Trainmaster King examined the engine after the accident, and found nothing wrong to indicate why it was derailed.

Signal Maintainer Goodell was over the track on the morning of October 19 and stated that in so far as he could judge, the track was then in good condition. The bonding and signal appurtenances were all right. The bond wires at the point of accident would allow the rail to be moved about a foot either way without breaking the track circuit. In the afternoon following the accident he found that the door of the relay box was open and the lock lying on the ground a foot or two from the post. The box had been locked with a Yale padlock; the staple was broken and pulled out, the broken ends of the staple showing clean new breaks.

Conclusions.

This accident was caused by malicious tampering with the track by some unknown person or persons.

The manner in which the rail was displaced indicates that the person or persons doing it were familiar with the track at this point and the train schedules as well. Apparently, also, they were familiar with the fact that this was in automatic block-signal territory, for in removing the angle bars and spikes, and shoving the rail in they were careful not to break the bond wires so that the automatic block-signal governing this section would give a clear indication. With the relay-box door open, as found by the signal maintainer after the accident it would be possible to see any change in the position of the relays indicating a change in the position of the signals. Also, with the door open, it

would be possible to disturb or interfere with the relays so as to cause the signal to indicate clear.

The engine crew of No. 2 had been on duty 3 hours at the time of the accident, after an off-duty period of 23 hours; the train crew had been on duty 45 minutes, after an off-duty period of 20 hours.

Respectfully submitted,

W. P. BORLAND,

Chief, Bureau of Safety.