

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
DETROIT, JACKSON & CHICAGO RAILWAY, DETROIT UNITED  
LINES, AT WARSAW, MICH., ON JUNE 18, 1921.

July 19, 1921

On June 18, 1921, there was a rear-end collision between two electric passenger trains on the Detroit, Jackson & Chicago Railway, Detroit United Lines, at Warsaw, Mich., which resulted in the death of 3 passengers and the injury of 22 passengers, 2 of them fatally, and 2 employees. After investigation of this accident, the Chief of the Bureau of Safety reports as follows:

Location and method of operation.

This accident occurred on that portion of the Detroit, Jackson & Chicago Railway which extends between Addison, Mich., and Jackson, Mich., a distance of 70.46 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 near the middle of the passing track at Warsaw; this passing track is 385 feet in length, and is located on the south side of the main track.

Approaching the point of accident from the east there is a tangent about 1,167 feet in length, followed by a curve to the left 571 feet long, the maximum curvature of which is 4°; the track is then tangent to a point beyond the east passing-track switch, nearly 1,500 feet distant. The grade is as follows: level for 300 feet, 3.92 per cent descending for 600 feet, 1.4 per cent descending for 350 feet, 0.07 per cent ascending for 350 feet, practically level for about 250 feet, 1.66 per cent descending for 350 feet, 250 feet of level track and an ascending grade of 1.57 per cent to the east switch, 650 feet distant. The weather was clear at the time of the accident which occurred at about 5:30 p.m.

Description.

Westbound passenger train 1st No. 169, in charge of Conductor Fletcher and Motorman Root, consisted of car 7293, a steel-under-frame car having a wooden superstructure. It left Addison, Mich. at 3.21 p.m., on time, with an order to meet eastbound train No. 170 at Warsaw. It departed from Ann Arbor, Mich., at 5.07 p.m., 19 minutes late, entered the siding at Warsaw, leaving the east switch open for the following section, and while standing on the siding was struck by the second section.

Westbound passenger train second No. 169, in charge of Conductor Lyon and Motorman Winchell, consisted of all-steel car 26. It departed from Addison at 3.25 p.m., and proceeded to Warsaw, at which point it also was to meet train No. 170; it entered the siding at Warsaw and while travelling at a speed variously estimated at from 15 to 40 miles an hour collided with the rear-end of train first No. 169.

Car 7293 was driven ahead through the west switch out upon the main track and came to rest approximately 400 feet west of the point of collision; it was telescoped about one-third of its length by car 26. The front end of car 26 was slightly damaged, and some of the air-brake equipment broken, including the brake rod for the forward truck.

#### Summary Of Evidence.

When the first section arrived at Warsaw siding, Motorman Root opened the switch and moved his car forward on the siding to a point about opposite the telephone booth located on the north side of the main line about midway of the siding. He then entered the booth and in accordance with instructions called the dispatcher to report on the condition of some track. After this report was made the dispatcher requested that the conductor be called to take an order; the following section was at that time in sight. The order was given to the conductor, the motorman reentered the booth to complete it, and the conductor started back toward the switch. He stopped when he was within about 15 feet of it and looked at the approaching section, but saw no indication of anything wrong, when it was within a few hundred feet he realized that it was not under control, he said it was then too late to close the switch. Conductor Fletcher said the reason he left the switch open was because he knew the following section was coming and had a meet there, and it was customary to leave a switch open for a following section, although the rule and the practice require the trainman in charge to stay at the switch which has been left open. He also stated that he could have thrown the switch had he realized that the approaching motorman was having trouble with his car, but no whistle was sounded, the motorman was sitting on his stool, and there was no warning given that the car was not under control. Conductor Fletcher did not know when the brakes were applied, but when the car passed him the wheels were sliding and the power seemed to have been reversed.

Motorman Winchell of the second section, said that throughout the trip he had found the brakes slack and that it was necessary to begin braking earlier than usual. When the car started down the hill it was traveling about 35 miles an hour and he shut off power and applied the brakes, but they did not hold as they should. After entering the curve he applied power as is customary until he rounded the curve, then shut off power again and started to brake, using the straight air until he reached the road crossing about 1,200 feet east of the point of accident; as that did not seem to reduce the speed he applied the brakes in emergency, but could hear only a slight exhaust. He said he then released the brakes and made several service applications, but without material effect, and that he again attempted an emergency application but heard only about half the usual exhaust. Apparently the speed was not reduced, and when about 600 or 700 feet east of the east end of the passing siding he reversed the power. He said he did not use sand or try the hand brake, nor did he sound the whistle to indicate that he was not in control of his

car. He knew he was to meet train No. 170 at Warsaw, and that the car in the passing track was the first section of his train, he saw that the switch was open. Motorman Winchell expressed the opinion that the brake rod was broken before the car started down the hill.

Conductor Lyon stated that approaching the passing track he went to the front end of the car, saw that the first section was in the siding and that the switch was open, and realized that his car was not going to stop, although the motorman did not in any way indicate that he could not control the car. Conductor Lyon said he did not feel any brake application and did not notice any operation of the motorman's hand on the controller or the brake handle, neither was there any apparent reduction in the speed of the train after starting down the hill.

Joint Inspector Ballard stated that car 26 was inspected at Jackson, at about 8.55 on the morning of the accident, and was reported in good condition; a brake test is not a part of such an inspection unless trouble has been reported; and in this case no such report had been made.

Foreman Inspector Ritter, located at Ypsilanti, 18.76 miles from Warsaw, stated that a running inspection of the car was made at that point about 4.40 p.m. and the car was reported to be in good condition. Motorman Schaible who operated car 26 from 10.00 a.m. until relieved at 4.17 p.m. by Motorman Winchell at Dunn, 19.03 miles from Warsaw, on the trip on which the accident occurred, stated that the brakes were a little slack from having been operated all day without adjustment and that he told Motorman Winchell the car was slow in braking, otherwise the car was all right. Motorman Schaible also said the slackness was not sufficient to cause him to stop for the purpose of having the brakes adjusted. Motorman Schaible rode on this car from Dunn to Ann Arbor, 10.15 miles from Warsaw, and did not notice that Motorman Winchell had any trouble in controlling it.

Foreman Inspector Ritter examined car 26, about 1 hour after the accident and found the controller reversed, but in the off position, and the brake valve in the emergency position. He also found the reverser had burned up under the car, and that the front truck brake rod was broken and the piston rod was out its full length. The brake rod had been bent downward and it was his belief that it was broken by the collision, he thought if it had been broken prior to that time the brake would have been a clean one instead of a bend. Mr. P. B. McGinnis, a representative of the Westinghouse Air Brake Co., stated that he examined the brake equipment of car 26 after the accident and found it in operative condition. He stated that in his opinion there was nothing to prevent correct operation of the brake valve.

### Conclusions.

The direct cause of this accident was the failure of Motorman Winchell properly to control the speed of his car approaching Warsaw passing track.

Motorman Winchell had been informed that his brakes were slack and according to his own statement he was fully aware of this fact by actual experience. Under these circumstances he showed poor judgment in not taking advantage of the retarding effect of the curve; he should also have begun to use his brakes sooner, and if they proved incapable of stopping the car he would have had more time to reverse the power. He is also to be censured for his failure to sound his whistle and thus call attention to his inability to control his car. This action undoubtedly would have given warning in time for Conductor Fletcher to close the switch and thus avert the accident.

Motorman Winchell entered the service of this road in December, 1918. His record shows that he had been suspended or reprimanded on five occasions for operating his car too fast on curves and over switches, for overrunning his order and passing stop signals, and for a rear-end collision. He had had 25 years' previous experience on a steam railroad as flagman and conductor.

At the time of the accident the crew of train first No. 169 had been on duty about 5½ hours and the crew of train second No. 169 a little more than 1 hour, and all had had the required period off duty.