

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS RAILWAY NEAR COLUMBUS, OHIO, ON MARCH 30, 1923.

May 29, 1923.

To the Commission:

On March 30, 1923, a passenger train on the Cleveland, Cincinnati, Chicago & St. Louis Railway struck an automobile and was derailed near Columbus, Ohio, resulting in the death of 1 passenger, 3 travelers on the highway, 3 employees, and 1 trespasser, and the injury of 43 passengers and 5 employees.

Location and method of Operation.

This accident occurred on that part of the Cleveland-Indianapolis Division extending between Cleveland and Columbus, a distance of 138 miles; 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 a manual block-signal system. The accident occurred at Oakland Park Avenue which crosses the tracks at right angles, near Clintonville telegraph and block office, located approximately 4 1/3 miles north of Columbus. Approaching this point from the north, the track is tangent for several miles, while the grade varies from level to 0.35 per cent descending, being 0.35 per cent at the point of derailment. There are two side tracks at this street crossing, on the west side of the main track; an industry track, located 42 feet 8 inches from the center of the main track, and a passing track, 16 feet from the main track. On the east a double track line of the Pennsylvania Railroad System parallels this line.

Approaching from the west an Oakland Park Avenue, a southbound train can be seen from the time it is about 3 miles distant until it reaches Clintonville yard, about 1 mile from Oakland Park Avenue; cars in the yard may then hide it from view. This yard, however, was practically clear at the time of the accident. As a traveler on the highway approaches within 300 feet of the crossing the view is obscured by the buildings of a lumber company until the person using the highway reaches the industry track. There was a box car on the industry track, however, so that a person had to cross that track in order to have a clear view of approaching southbound trains. The grade of the highway between the industry track and the main line is slightly ascending. At the crossing where this accident occurred there are two railroad crossing signs, located on the right side of the highway approaching the crossing from the west. One crossing sign is maintained by the Cleveland, Cincinnati, Chicago & St. Louis Railway; it is a cross-arm sign post, having the words "RAILROAD CROSSING" painted on both sides of the cross arms, and is located 6 feet south of the highway, 13 feet 5 inches east of the main track, and 55 1/2 feet from the western approach to this crossing. The other crossing sign, maintained by the Pennsylvania Railroad System, is located 7 feet 10 inches east of the northbound main track, 4 feet from the south side of the highway, 16 feet from the eastern approach to the crossing. This crossing sign has a short horizontal board, then two cross arms, and below another longer horizontal board, and is lettered in black on the east side as follows: TWO RAILROAD CROSSING DANGER. On the west side of this sign the upper and lower horizontal boards are

blank, while the cross arms have the words "RAILROAD CROSSING" on them. The weather was clear at the time of the accident, which occurred at about 8.25 a. m.

Description.

Passenger train No. 11 consisted of one club car, six Pullman sleeping cars, and a dining car, all of all-steel construction, hauled by engine 6480, and was in charge of Conductor McGraw and Engineman Green. This train passed Worthington, approximately 4 miles north of the point of accident, at 8.22 a.m., 52 minutes late, and struck the automobile at Oakland Park Avenue while traveling at a speed variously estimated to have been between 60 and 90 miles an hour.

The automobile was being driven east, toward Columbus, the driver being a woman and the other occupants her two children. The automobile was a touring car, weighing approximately 3,200 pounds, and side curtains were being used. It was driven upon the track at a speed of 15 or 20 miles an hour and had reached approximately the center of the track when it was struck by train No. 11.

Engine 6480, its tender, and the third car were derailed to the left, the engine coming to rest about 600 feet south of the initial point of derailment, on its left side badly damaged; the first and second cars were derailed to the right, the first car coming to a stop 50 feet beyond the engine. The next four cars were derailed but remained upright on the roadbed, while the dining car, which was the rear car in the train, stopped with only its front truck derailed. The automobile was totally demolished. The employees killed were the fireman and two assistant fuel supervisors who were riding on the engine. The driver of the automobile and the two children were also killed.

Summary of evidence.

Engineman Green stated that approaching the crossing he sounded the whistle and the bell was ringing and had been for some time. Although he was sitting on the seat box looking directly ahead, he did not see the automobile approaching until just as it was struck. He said he immediately applied the air brakes. It was his opinion that some part of the demolished automobile got under the truck wheels, raising them enough to derail the front wheels. He, estimated the speed of the train at the time of the accident to have been about 70 miles an hour.

Conductor McGraw was riding in the fifth car from the engine and the first knowledge he had of anything wrong was when he heard a grinding noise; he felt the brakes applied in emergency, but did not know whether it was before or after the automobile was struck. He estimated the speed at the time of the derailment to have been between 65 and 70 miles an hour. He could not tell from his position in the train whether or not the bell was ringing, or the usual crossing whistle signal was sounded. Brakeman Finrock and Baggage man Bettner practically corroborated Conductor McGraw's statement as to the speed of the train at the time of the derailment.

Operator Butler, who was on duty at Clintonville telegraph office, located on the east side of the track about 300 yards north of the crossing, stated that he was standing in the doorway as train No. 11 approached; on looking toward the crossing he saw the radiator of the automobile as it appeared from behind the box car on the industry track, and thought it would stop; after waving his hand to the fireman, he again looked towards the crossing and at about that time the engine struck the automobile. He said the engineman had sounded the crossing whistle and that the bell was ringing; he estimated the speed of the train at 85 or 90 miles an hour.

At the time of the accident a local freight train on the Pennsylvania Railroad was switching at a point north of the crossing and east of the tracks of the Cleveland, Cincinnati, Chicago & St. Louis Railway. Brakeman Dumont of the Pennsylvania train said he had seen the automobile approaching along side the lumber company's buildings, but did not think anything about it until he saw it start over the crossing. It seemed to be moving at a moderate rate of speed, about 15 miles an hour, and at first he thought it was going to stop. He did not notice the position of the occupants of the automobile, and was unable to say whether it was a closed car, or an open car with the side curtains in use. Brakeman Dumont said the engineman of train No. 11 had sounded a road crossing whistle when about opposite the middle of the Clintonville yard, which would have been within a half mile of the crossing, and that the train was moving at a speed of 60 or 65 miles an hour; he did not know whether or not the bell was ringing. He further stated that he had no time to give any warning signals to the persons in the automobile and that he did not see any signals or warning of any kind given by anyone else.

Statements obtained from five other witnesses of the accident indicated that the driver of the car was not driving at excessive speed or in a reckless manner, but approached the crossing at a speed of about 15 miles an hour, and that apparently no attempt was made to speed up so as to cross the tracks ahead of the approaching train. It was developed in the investigation of this accident that the driver of the car was entirely familiar with the operation of an automobile, having driven several different makes of automobiles for the past 6 years; that she lived approximately one mile from the crossing, and had lived in that vicinity for several years. A neighbor of the driver stated that she had ridden over this crossing on several occasions and considered her a very competent automobile driver and one who always drove with care.

Examination of the track showed that the left ends of the 6th, 11th, 27th and 30th ties south of the crossing were deeply marked, where some part of the automobile or engine had been rolled or pushed ahead of the engine; south of the 30th tie to the point where the track was torn up, all of the ties were badly marked. The first mark of a derailed wheel was on the inside of the right rail, 61 feet south of the crossing; at this point the head of an angle-bar bolt had been sheared off. The first mark on the outside of the left rail was 2 1/2 feet farther south. The flange marks were very light from this point for a distance of about 150 feet to where the derailed wheels came in contact with the frog of the passing-track switch; after following the lead rail of the passing track for a distance of about 30 feet the engine became entirely derailed, and the track was torn up beyond this point. It is apparent that either a part of the automobile or of the pilot of the engine got under the engine truck wheels, causing them to be derailed.

A check of traffic over this crossing, made by inspectors of the Commission, covering a period of 24 consecutive hours, showed a volume of traffic amounting to 700 movements, consisting of the following:

Automobiles and trucks	495
Horse drawn vehicles	53
Pedestrians	75
Equestrians	11
Live stock	6
CCC & St. L. Passenger trains	21
" Freight "	8
" Motor cars 2	
" Switch engines	6
Pennsylvania Systems Passenger trains	2
" " Freight "	19
" " motor cars	2

	700

Of this volume, 56 were train movements, an average of one train movement every 25 minutes. It was estimated that at least 800 people daily crossed the tracks at this point. In the early morning hours from 1 to 4 a.m., the traffic consisted of three automobiles and one truck.

Conclusions.

This accident was caused by the driver of an automobile proceeding upon a railroad crossing at grade directly in front of a passenger train which was approaching at high speed.

The evidence indicates that the proper warning signals had been given by the engineman of train No. 11, but that the driver of the automobile did not use the precautions necessary before proceeding over the railroad crossing at a point where the view of approaching trains is materially obscured. The side curtains were being used and undoubtedly the driver did not see the approaching train before her view of it was cut off by the lumber company's buildings, and

after passing those buildings she for some reason failed to observe the approaching train or to reduce speed in readiness to stop should a train then be in sight. There was a local freight train switching on the tracks of the Pennsylvania Railroad east of the crossing, and it is possible the driver may have been paying attention to that train and thus have failed to observe the approach of train No. 11. There was sufficient space between the industry track and the main track, where the view was unobstructed within which the automobile could have been stopped while the train passed.

The speed limit for passenger trains over this part of the road is 70 miles an hour. There was considerable variation in the statements of the various witnesses as to the speed of train No. 11; but the weight of evidence indicates that it was about 65 or 70 miles an hour.

This accident again calls attention to the vital necessity for automobile drivers to approach railroad crossings with caution and to make certain before proceeding over them that no train is approaching.

In this case the driver was a local resident and was familiar with the location of this crossing and its physical characteristics. However, this crossing is not protected by a flagman, gates or signal devices to indicate the approach of trains. As there is considerable travel and as the highway crosses the tracks of the two railroads at this point, it is believed that some form of protection for highway traffic, in addition to that afforded by the crossing signs is required.

As previously noted, all of the equipment of train No. 11 was of steel construction. In view of the speed of the train, and the manner in which the cars thrown as a result of the accident, it is probable that the loss of life would have been much greater had equipment of wooden construction been in use.

All of the employees involved were experienced men; at the time of the accident they had been on duty between 4 and 4 1/2 hours, after being off duty 12 hours or more.

Respectfully submitted,

W. P. BORLAND

Director