Inv-2223

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

CHICAGO, MILWAUKEE, ST.PAUL & PACIFIC RAILROAD

MORTON GROVE, ILL.

NOVEMBER 14, 1937.

INVESTIGATION NO. 2223

SUMMARY

Inv-2223

Railroad:	Chicago, Milwaukee, St. Paul & Pacific
Date:	November 14, 1937.
Location:	Morton Grove, Ill.
Kind of accident:	Collision with automobile and derailment
Train involved:	Passenger
Train number:	Second 19
Engine number:	6144
Consist:	5 cars
Speed:	45 to 50 m.p.h.
Track:	Tangent
Weather:	Clear
Time:	7:53 p.m.
Casualties:	1 killed, 2 injured
Cause:	Automobile stalled on the track near a highway crossing due to loss of control of the car following damage to a tire.

To the Commission:

On November 14, 1937, there was a collision between a passenger train and a stalled automobile on the tracks of the Chicago, Milwaukee, St. Paul & Pacific Railroad at Morton Grove, Ill., which resulted in the derailment of the passenger train and caused the death of one employee, and the injury of one employee and one passenger.

Location and method of operation

This accident occurred on that part of the Milwaukee Division which extends between Chicago, Ill., and Milwaukee, Wis., a distance of 85 miles, and is a double-track line over which trains are operated by timetable, train orders and an automatic block-signal system. The timetable directions are east and west but the railroad in this vicinity extends from southeast to northwest and geographical directions are used in this report.

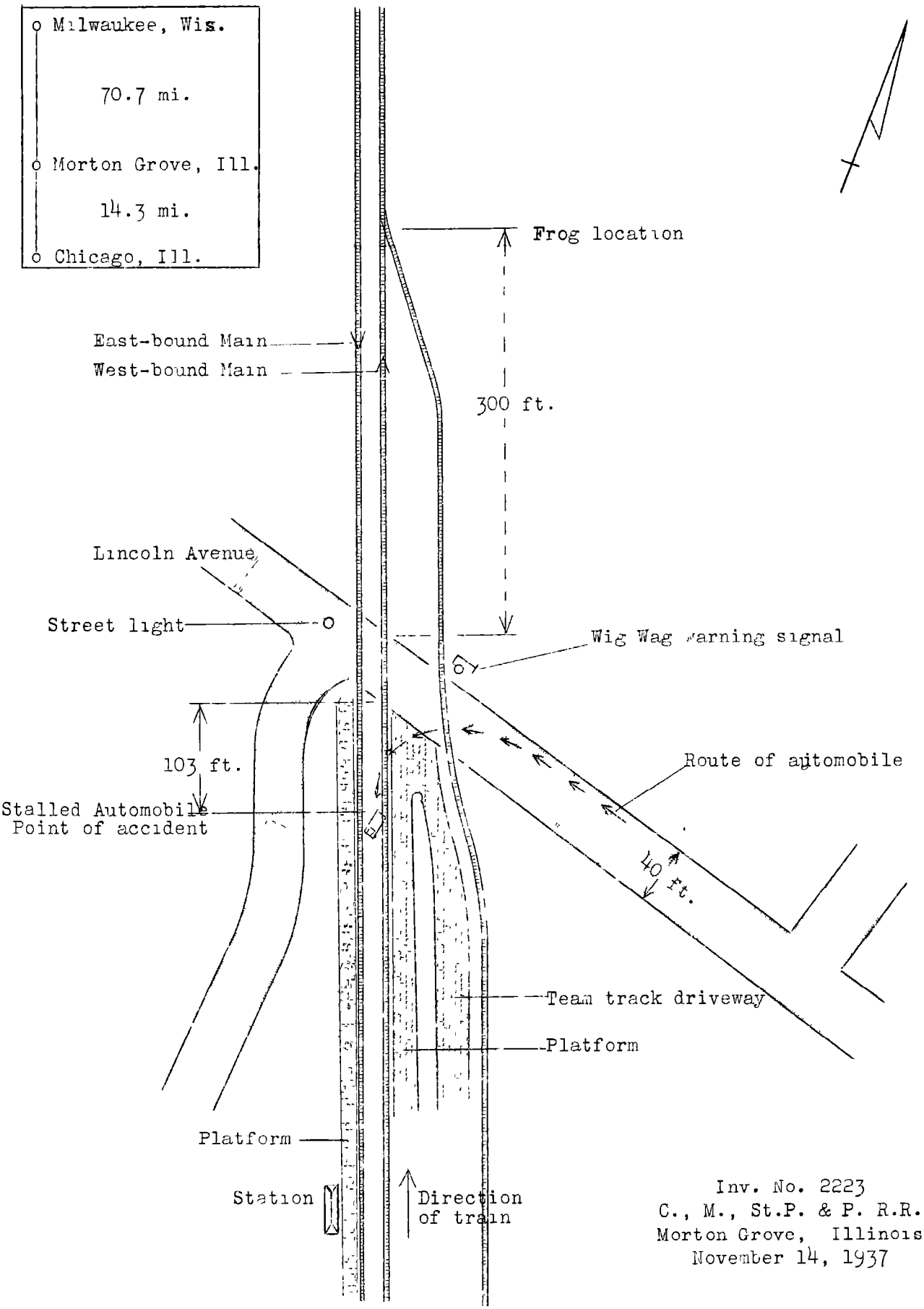
The track is tangent for several miles on either side of the point of accident, and the grade is approximately 1 percent ascending for west-bound trains for a distance of 3,400 feet to that point.

The track, which is well maintained, is laid with 100 pound rail in 39-foot lengths on an average of 24 hardwood ties to the rail length. It is single spiked, fully tie-plated, provided with rail anchors, and well ballasted with washed gravel.

The maximum authorized speed for passenger trains hauled by F3 engines is 90 miles per hour.

Lincoln Avenue in Morton Grove crosses the tracks of the C.M.St.P.& P. R.R. at an angle of 45° from southeast to northwest. There are three tracks over this crossing, designated, from west to east, as the eastward main track, the westward main track, and the team track. The center-to-center distance between the main tracks is 13 feet 6 inches while between the westward main track and the team track it is 40 feet at the south edge of the crossing and 33 feet at the north edge. The frog of the turnout connecting the team track to the westward main track is located approximately 500 feet north of the north edge of the crossing.

Morton Grove station is on the west side of the tracks about 400 feet south of Lincoln Avenue, and its platforms, about 10 feet wide, extend to the crossing, along the east side of the



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westward main track and along the west side of the eastward main track. For a distance of 45 feet south of Lincoln Avenue the platform for the westward main track is composed of crushed stone screenings. Between this platform and the team track there is a driveway also surfaced with crushed stone screenings and the driveway and platform merge about 25 feet south of Lincoln Avenue and present a continuous stretch of about 30 feet of crushed stone screenings along the south edge of the crossing. A sidewalk is provided along the south side of the street but there is no curbing and the sidewalk is flush with the crossing pavement.

Fifty-five feet west of the eastward main track Railroad Avenue branches in a southeasterly direction from Lincoln Ave., at an angle of 45° and parallels the railroad for a distance of 200 feet before it turns due south.

Lincoln Avenue crossing is 40 feet wide and is surfaced with a smooth asphalt composition which is in good condition. Track flangeways are provided by laying a rail, ball up, on the inside of the running rails. The surfacing material is laid flush with the tops of the rail.

The crossing is equipped with crossing signals which show flashing lights in both directions and also give an audible warning by ringing a bell; in addition a stop disc is displayed when a train is approaching. One of these signals is located at the north edge of the crossing 10 feet east of the team track, and another is located at the south edge of the crossing 10 feet from the eastward main track. The southern limit of the circuit controlling the operation of these signals is approximately 2,500 feet south of the crossing.

From a point on Lincoln Avenue 75 feet east of the westward main track a view of the tracks for $\frac{1}{2}$ mile south may be had, and from a point 30 feet from the westward main track the main tracks may be seen for a distance of several miles to the south.

It was dark but clear at the time of the accident, which occurred at 7:53 p.m.

Description

Second 19, a west-bound first-class passenger train, consisted of one baggage car and four coaches in the order named, all of all-steel construction, hauled by engine 6144, and was in charge of Conductor Hagelum and Engineman Bickel. This train left Chicago at 7:30 p.m., 1 hour 45 minutes late, according to the train sheet, and was derailed when it struck a stalled automobile at a point 103 feet south of Lincoln Avenue crossing, in Morton Park, while traveling at a speed of about 50 miles per hour.

The automobile involved was a 1936 model Dodge sedan, owned and driven by E. E. Fortney, of Chicago, Ill. Just prior to the time of the accident it was occupied by the owner and four passengers. This car approached from the east on Lincoln Avenue and shortly after moving upon the crossing it veered to the south and stopped 103 feet south of the crossing, headed south, with the front wheels between the two main tracks and the rear wheels straddling the west rail of the westward main track. It was standing in this position when it was struck by Second 19.

Engine 6144 stopped approximately 800 feet north of the point of collision; it lay on its left side across the eastward main track, headed north, with the cistern standing to the east and forming a right angle with the north end of the engine. The head car was tilted slightly to the east but remained close to the westward main track. The second and third cars were derailed but remained close to the westward main track.

The employee killed was the fireman.

Summary of evidence

Engineman Bickel stated that before leaving Chicago a terminal test of the air brakes was made and the brakes were reported to him as being all operative. Leaving the depot he made a running test, and also a service application at Western Avenue, and in each case the brakes operated satisfactorily. Approaching Morton Grove the speed was about 50 miles per hour; the headlight was burning brightly and he was keeping a lookout ahead. The fireman, too, was looking ahead from his position on the seat box. The bell had been ringing continuously since leaving Chicago, but because of an ordinance of the town of Morton Grove he did not sound a crossing whistle signal; however, he did sound the whistle when the stalled automobile came into view. He did not see the automobile until the rays of the locomotive headlight shone upon it, neither did he see anyone giving signals of any kind. The stalled car was 700 or 800 feet away when he first saw it and he immediately made an emergency application of the brakes. The engine seemed to be derailed immediately after the collision and it swayed from side to side until the turnout leading to the team track was reached where it started to turn over. Engineman Bickel stated that the accident occurred about 7:55 p.m.; the last automatic signal to the south of the point of collision was displaying a clear indication, and the lights on the crossing warning signal were flashing after the accident.

Conductor Hagelum corroborated the statement of Engineman Bickel regarding the terminal test of the air brakes, and estimated the speed of the train as between 45 and 50 miles per hour

when he felt the emergency application of the brakes just before the collision. It was dark but clear at the time of the accident which occurred at 7:53 p.m., but it had been raining and the roadway was still damp. There were no cars on the team track in the vicinity of Lincoln Avenue.

E. E. Fortney, owner and driver of the automobile which was struck, stated that at about 7:50 p.m. he was driving west on Lincoln Avenue in Morton Grove, accompanied by Mr. and Mrs. John Parker and their two children. As he approached the railroad crossing he slowed down but as the flashing lights were not lighted and there was no train in sight he did not stop. As he drove upon the crossing some object caught one of the rear tires, causing it to blow out, and as a result the car veered across the pavement and upon the westward track. He attempted to back out but the wheels became embedded in the ballast. By this time he realized that it would be difficult to release the car and he ordered the occupants out. After an attempt to move the car out by going forward he and Mr. Parker, assisted by a Mr. Bohn, who had noticed their plight, made an effort to lift the rear end out but were unsuccessful. At this time the headlight of an approaching train became visible to the south, and after making one more effort to free the car, he left it with all lights burning, and ran down the track toward the train attempting to flag it. Evidently his signals were unseen as the train struck the automobile at full speed.

The statement of Mrs. Parker, who was a passenger in the automobile, agreed with that of Mr. Fortney except that she said that the automobile moved upon the crossing at a speed of about 20 miles per hour and that the train was visible at the time the automobile stopped on the tracks. She also stated that after she got out of the car she ran down the west side of the eastward track trying to attract the attention of the engineman of the approaching train. As she had no light she was unable to do more than call out as loudly as possible. At the time of the collision the headlight on the locomotive was burning brightly. She was unable to say what had caused the blowout.

Robert Bohn, of Glenview, Ill., stated that on the evening of the accident he was visiting at a house located about 200 feet from the point of accident. Early in the evening he had occasion to leave the house and as he did so he noticed an automobile stalled on the track about 100 feet south of Lincoln Avenue. He immediately proceeded to the point to offer assistance, and when he arrived at the car he found that the left rear wheel was between the rails of the westward main track and the right rear wheel was just outside the west rail of that track. He was not sure of the position of the front wheels. The right rear wheel

was spinning and as a consequence was digging itself into the ballast. The woman and children who had been in the car were already on the station platform and one of the men was shoving the car. The headlight of an approaching train was already visible to the south. He assisted in the attempts made to free the car, and all three of the men, including himself, stayed with it until the train was very close. An attempt was then made to flag the train but no one had lights of any kind. The headlight of the locomotive was burning brightly, but the automobile was headed in a direction which made it impossible to see its lights from the south. Sparks flying from the wheels of the train made it evident to him that the brakes were set when the engine was still south of Morton Grove station. There was no evidence that any of the persons who had been in the automobile were intoxicated. He was unable to state what the condition of the rear tires was prior to the collision.

Mark R. Corcoran, station agent at Morton Grove, stated that the station waiting room is open 24 hours on Sunday but no one is on duty there. He was not at the station at the time of the accident.

Alex Kouris, a member of the section gang at Morton Grove, stated that he was in the station on the night of the accident waiting for a train to Chicago. A woman came in and asked him how she could stop the approaching west-bound train. He could do nothing about it as he had no lamp and the train was too close. the woman then ran down the west side of the tracks. One of the men was standing at the stalled car waving his arms but there was no flagging with a light.

Observations of the Commission's inspectors

The first marks of derailment appeared about 10 feet north of the point where the collision occurred. Apparently both pairs of engine truck wheels left the track at the same point and traveled along the ties close to the rails until the turnout leading to the team track was reached where a general derailment took place.

An inspection of the wreckage of the automobile disclosed two flange marks diagonally across the left end of the back-axle housing, about 5 inches inside of the brake drum. Just above these flange marks the inside surface of the brake drum was considerably abraded. The right rear spring, which was still attached to the axle housing, was badly twisted.

Three wheels had been salvaged from the wreckage and the tires on all were in good condition; however, two of these were

taken from the front wheels, and the other was probably the spare wheel.

There was nothing apparent about the crossing which would have caused damage to a tire.

Discussion

The evidence is to the effect that the automobile involved while being driven upon the railroad crossing suffered damage to the right rear tire sufficient to cause the driver to lose control of the car. As a result the car veered to the left and came to a stop headed south with the rear wheels astride the west rail of the westward track. All of the passengers left the car, and the two male passengers, assisted by a man who had been attracted to the scene by the position of the car, made unsuccessful efforts to get the car off the track. When the west-bound train was quite close to the stalled car an attempt was made to flag it by waving arms, and when it became evident that a collision was inevitable those persons in the vicinity of the car fled to places of safety. In the meantime a woman passenger of the car made futile audible attempts to warn the engineman of the approaching train. It was dark at the time of the accident and no flares or lights of any kind were used in flagging the train, and as the position of the stalled car precluded the possibility of the engineman seeing its lights its presence on the track was not discovered by him until the bright light of the engine headlight fell upon it.

The movement of the automobile upon the crossing was made before the train had reached the southern limit of the circuit controlling the operation of the warning signals so that no question of their integrity is involved.

The progress of the derailment was clearly indicated. When the left rear wheel of the automobile was struck by the engine the housing of the back axle of the automobile was torn from its shackles and carried ahead of the engine-truck wheels until the left rear spring together with the weight of the wreckage was sufficient to offer enough resistance to hold the housing stationary. At this time the housing lay across the rail in such position that the left brake drum was close against the west rail and formed an angle of about 60° with the rail. At the same time that the wheel flanges mounted the housing they were brought into contact with the inner surface of the brake drum which then directed the wheels to the west so that they dropped upon the ties close to the rail. Apparently the engine truck wheels were the only ones derailed at this point as the flange marks were light. The engine-truck wheels remained close to the rails

until the turnout leading to the team track was reached when the engine slued to the right tearing up the track and causing a general derailment.

Conclusion

This accident was caused by an automobile stalled on the track near a highway crossing due to loss of control of the car following damage to a tire.

Respectfully submitted,

W. J. PATTERSON,

Director.