

1911

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING
AN ACCIDENT ON THE LAKE SHORE ELECTRIC RAILWAY AT CLYDE,
OHIO, ON MAY 6, 1934.

July 9, 1934.

To the Commission:

On May 6, 1934, there was a collision between an electric interurban freight train of the Lake Shore Electric Railway and a motor bus at Clyde, Ohio, which resulted in the death of 2 passengers on the bus, and the injury of the bus driver, 1 student bus driver, 2 bus porters, and the motorman and conductor of the electric train. This accident was investigated in conjunction with the Public Utilities Commission of Ohio.

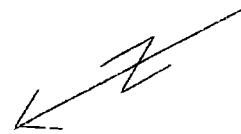
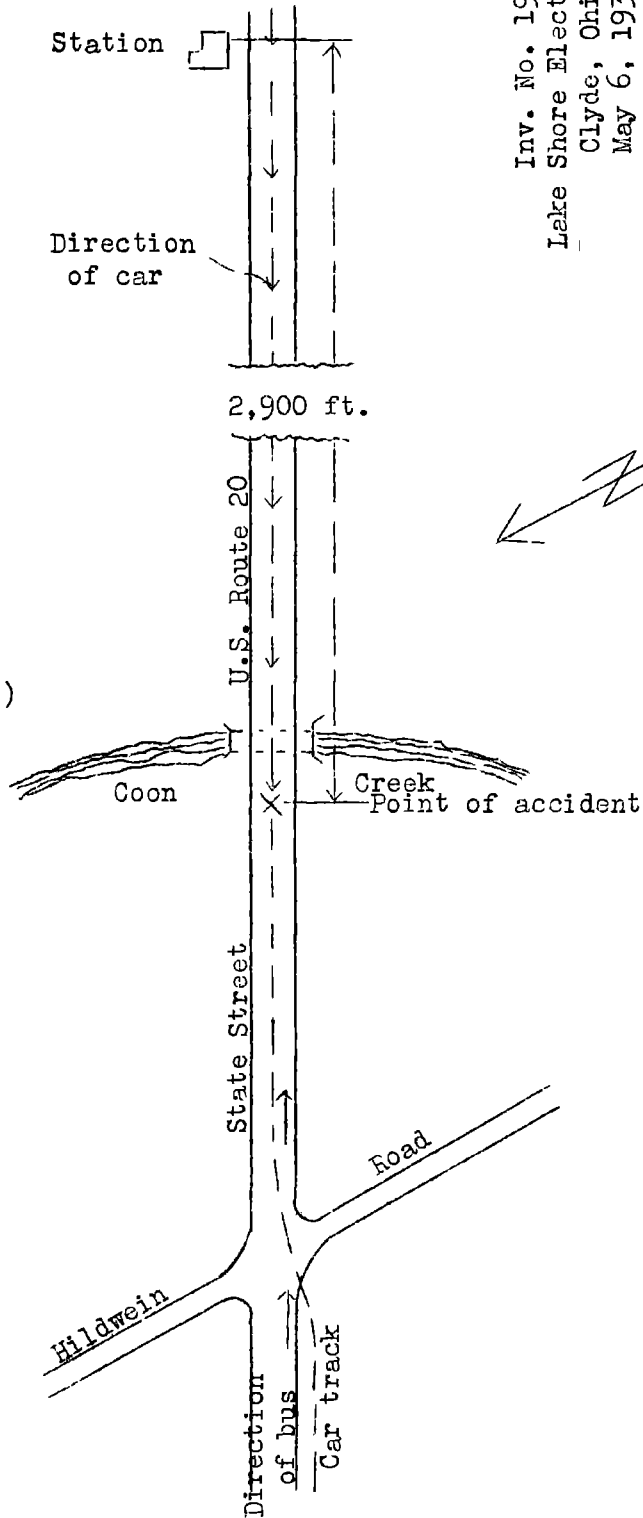
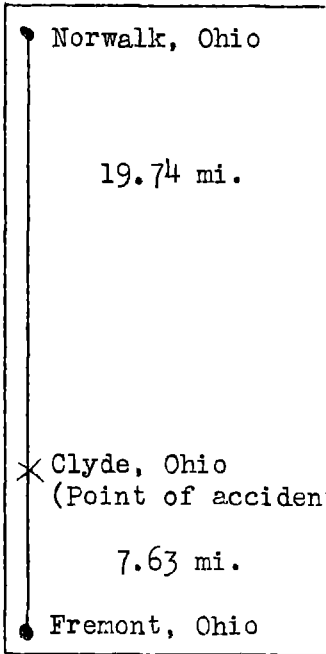
Location and method of operation

This accident occurred on that part of the railroad extending between Norwalk and Fremont, Ohio, a distance of 27.37 miles; in the vicinity of the point of accident this is a single-track electric line over which trains are operated by time table and train orders, no block-signal system being in use. The accident occurred within the corporate limits of Clyde, on State Street, 2,900 feet west of the station and 530 feet west of a regular stopping point for the bus involved in this accident; approaching this point from either direction the track is tangent for a considerable distance, and the grade is 0.3 percent descending for west-bound trains.

State Street extends east and west and the railway track is laid in the center of the street, with the improved highway, which is known as U.S. Route 20, paralleling the track on either side at the point where the accident occurred. The highway proper is composed of macadam about 10 feet in width on each side of the track, outside of which there are well-settled shoulders from 7 to 10 feet wide, dressed with medium crushed stone and slag; the center strip upon which the car track is laid is about 10 feet in width and filled in between and along the outside of the rails with medium crushed rock and stone to the tops of the rails and is approximately level with the adjoining macadam surface of the highway.

The speed limit through Clyde for electric railway trains is 25 miles per hour, while highway vehicles are limited to a speed of 35 miles per hour.

Inv. No. 1911
Lake Shore Electric Ry.
Clyde, Ohio
May 6, 1934



The weather was clear and day was breaking at the time of the accident, which occurred about 4:15 a.m.

Description

West-bound interurban freight train Extra 28 consisted of motor 28, of wooden construction, with an underframe reinforced with steel, and was in charge of Conductor Pence and Motorman Stotz. On arrival at Clyde several bundles of Sunday newspapers were unloaded and the car departed from the station at 4:12 a.m., according to the train sheet, and it was proceeding westward on State Street at a speed estimated to have been about 18 or 20 miles per hour when the left front corner was struck by the bus.

East-bound Great Eastern Stages, Inc., bus 135, carrying passengers from Chicago, Ill., to Cleveland, Ohio, and points east, was in charge of Driver Yeigh; the body was of wooden construction, reinforced with thin-gauge sheet steel. This bus left Toledo, Ohio, about 2:45 a.m., passed through Fremont, located about 22 miles beyond, about 3:45 a.m., and was proceeding eastward on State Street in Clyde at a speed estimated to have been about 15 miles per hour when it swerved to the left and collided with the electric car.

The entire left side of the bus was torn off, together with some of the seats on that side, and the top was ripped open, while the front axle and steering gear were bent; the bus stopped on the opposite side of the street car track, across the west-bound side of the highway, headed northeast with its front end against the corner of a culvert about 250 feet east of the point of impact. Motor car 28 was not derailed, but the left side of the front vestibule was torn off, the motor car stopping with its rear end about 125 feet west of where the collision occurred.

Summary of evidence

Motorman Stotz stated that when he first saw the bus it was just west of Hildwein Road, located about 1,075 feet west of the point of accident, and its headlights were burning. Motorman Stotz had the power shut off and the motor car was drifting at a speed of about 18 or 20 miles per hour, with the headlight burning dimly as required when within the corporate limits of Clyde. The bus seemed to be traveling at a good rate of speed and to follow the car track for a short distance, after which it crossed over to the south side of the highway clear of the track. When only 15 feet distant, however, it swerved directly into the path of the motor car, as though the driver had lost control, whereupon the motorman immediately applied the air brakes in emergency. After the crash the bus passed

on the south side of the car and then crossed the track back of the car to the north side of the street. Motorman Stotz had the vestibule windows closed; he stated, however, that he did not hear any explosion to indicate that a tire had blown out, although after the accident he noticed that the tire on the left front wheel was flat. Conductor Pence was sitting inside the front end of the car and had seen the bus when some distance away, but he paid no further attention to it and was unaware of anything wrong prior to the accident; just after the collision occurred he thought he heard the sound of air blowing but could not say definitely where it came from; it did not sound like an explosion.

Bus Driver Yeigh stated that he took charge of the bus at Toledo about 2:45 a.m. and departed immediately. Nothing unusual occurred en route to Fremont, the bus leaving that point about 3:45 a.m., practically on time. Just east of Fremont, which is located about 8 miles west of Clyde, the highway was torn up and in exceptionally rough condition for a considerable distance. At Clyde he stopped on State Street for the crossing at Hildwein Road, and then proceeded eastward on the right side of the car track and away from the track far enough to give the car plenty of clearance. He did not recall when he first observed motor 28 approaching, but said that its headlight was burning dimly and that the headlights on his bus were lighted. The speed of the bus was about 15 miles per hour and when about 15 feet from motor 28 he felt a jerk from the steering wheel, although he did not lose hold of it, and the bus swerved to the left and struck the motor car, the movement being so sudden that he could not hold the bus to its course or steer it back on the right side of the highway in time to avert the accident, nor did he apply the brakes. Driver Yeigh would not say that he heard a noise similar to that ordinarily made when a tire blows out, yet in view of the way the bus handled he thought that the left front tire blew out, saying that when a front tire on either side blows out it will drag the bus to that particular side of the road and when the blowout occurs the bus can not immediately be brought back into the road. Driver Yeigh further stated that he had been off duty at Cleveland for a period of 31 hours and 20 minutes prior to going on duty at that point at 2 p.m., May 5; then he went to Toledo, going off duty there at 6 p.m. and remaining off duty for 8 hours and 45 minutes, during which time he remained around the station and restaurant, but did not go to the hotel, having obtained a little sleep at the station prior to going on duty at 2:45 a.m., May 6, for the trip on which this accident occurred. He said that busses receive a general inspection at each end of the road and that before starting out from Toledo he personally checked the tires, wheel lugs and steering gear and found them to be all right, while the brakes,

motor and steering gear operated properly en route. Driver Yeigh further stated that he understood there had been some talk among the bus passengers and porters about his bus having sideswiped a vehicle en route, and that some of them thought he appeared to have been slightly under the influence of liquor, but he said there was no truth in either of these contentions, saying that he had not had anything intoxicating to drink for a period of 4 years, that he had an ailment which did not interfere with his work as a bus driver but which required that he take medicine prescribed by his doctor, and that both his doctor and the druggist who filled the prescription had told him that the medicine and whiskey would not mix and that in the event he drank whiskey or any similar intoxicant while taking the medicine it would result in his death.

Student Bus Driver Brie, en route from Chicago to New York, said he sat in seat 6, on the right side of the driver. At Toledo the drivers changed, Driver Yeigh taking charge, and he appeared to be in good humor, happy and smiling, and talked to the passengers. The bus was driven properly leaving Toledo and stops were made for traffic lights as required. The rules prohibit drivers talking while busses are in motion and therefore no conversation was held en route, and Student Driver Brie said that when the bus got out on the highway he leaned his head back upon a pillow and dozed, being asleep when the accident occurred. He had no personal knowledge as to whether the bus had sideswiped another vehicle, or whether the bus was handled properly just prior to the accident. Student Driver Brie said there was a decided odor of some confection on the driver's breath, similar to that of chewing gum, but in his opinion the driver had not been drinking, adding that had the driver been under the influence of liquor the bus dispatcher would not have permitted him to make the trip and in addition he would have been reported to the officials, which undoubtedly would have resulted in his dismissal from the service and have precluded the possibility of being employed again as a driver.

Some of the bus passengers, as well as the two porters, one of whom was deadheading, were interviewed and according to their statements some of them were asleep, while others were dozing and some were awake; some of them said that the bus was driven in a reckless manner en route, going over to the wrong side of the road when making right turns, occupying too much of the road, and weaving from one side of the road to the other; some said that the driver appeared intoxicated while others noticed nothing wrong with his condition; some of them claimed that they heard an unusual noise at one place en route, which they attributed to the bus having sideswiped a truck moving in the same direction, but none of them had any definite knowledge of such

an occurrence, while one of the passengers who was sitting on the right side of the bus and was awake all the time after leaving Toledo knew nothing whatever about such a vehicle being sideswiped, and examination of the right side of the bus after the accident failed to disclose any scrape marks such as would have been made had an overtaken vehicle been sideswiped by the bus. None of them heard a noise such as usually occurs when a tire blows out.

The managers and several employees of two different hotels at Toledo where Bus Driver Yeigh usually stayed said they never knew of any instance where he had taken anything intoxicating to drink, that after staying in his room he always left it in the best of order, that at no time had any empty liquor bottles been found in the room, and that at all times he had conducted himself as a gentleman. Division Supervisor Jervis, of the Great Eastern Stages, Inc., stated that Driver Yeigh's services had been satisfactory in every respect and that he never knew him to drink anything intoxicating.

Mr. F. Billings, owner of the garage that had charge of picking up the damaged bus, stated that he arrived at the scene about 4:30 a.m. The tire on the left front wheel was flat and there was a large white mark on the outside of the tire where it rubbed against the corner post of the culvert at the point where it stopped after the crash. There was a large rent in the tire, showing indications of a blow out, some of the fabric having blown through from the inside to the outside of the rubber, but Mr. Billings could not tell definitely whether the tire blew out before or at the time of the impact, although he did not see anything about the electric car that might have been forced through the tire from one side to the other and there were no particles of metal or wood found inside the tire or tube after the accident. Undoubtedly the tire sustained further damage after the impact occurred, when the bus crossed back of the car to the opposite side of the highway and stopped against the culvert and also when it was pulled back in order to clear the street. The front axle was not broken, but it was badly twisted and the left front wheel was turned to the outside, locked, and jammed inward and under the bus, and it was necessary to cut off various parts in order to get the bus ready to be towed into the garage. He did not think that the driver of a bus of the type involved could throw it 2 or 3 feet out of a straight course, within a distance of about 15 or 25 feet, in the short space of time available when considering the fact that the two vehicles were traveling toward each other at moderate rates of speed, but said that this could have been accomplished by a broken steering gear or a tire blow-out. There were no holes in the roadway or obstruction of

any kind that could have been struck by the bus, and he could not find any marks on the roadway to indicate that a tire had been down before the collision occurred.

Mr. G. Brugger, joint proprietor of a tire vulcanizing and accessory store at Clyde, stated that the tire involved consisted of a Firestone casing and tube. Both walls of the casing appeared to have been pushed through by coming in contact with some heavy object. The length of the hole on one side of the tire was about $1\frac{3}{4}$ feet and on the other side of the tire there was one about 10 inches in length. Above the place where the two side walls were broken the tread was gouged and scratched. The tube also was torn in two places, apparently by the same objects that damaged the casing. Both the tire and tube appeared to have been in good condition prior to the accident, and in his opinion they were damaged as a result of the impact, with no evidence of a blow-out.

President Wadsworth, of Great Eastern Stages, Inc., said that Driver Yeigh had been in the employ of his company for about 4 years, and was a married man of good habits and excellent record; this was the first accident of consequence in which he had been involved. Before a man is employed as driver he is required to take instructions under a competent driver and pass a regular written examination. Mr. Wadsworth also stated that when the bus was last overhauled in February a new left front tire was applied and since that time it had covered about 1,260 miles; these tires are built expressly for heavy-duty, fast service and furnished by the manufacturer on a mileage basis. The worn steering gear with which the bus is equipped would require a full swing of the wheel, or more, to move the bus out of a straight course more than a few inches in 15 or 20 feet, but a tire suddenly becoming deflated on a front wheel would cause the bus momentarily to swerve out of control of the driver. In his opinion the tire on the left front wheel was damaged while traveling over the $2\frac{1}{2}$ miles of rough road undergoing repairs east of Fremont, or at some other point, finally resulting in a blow-out and causing the accident.

More than a day after the occurrence of the accident the Commission's inspectors examined the skid marks made on the highway by the tires of the bus. There was a circular skid mark of a tire turning in toward the car track about 9 inches within a distance of about 2 feet and ending at a point about 1 foot outside of the south rail, where the wheel and tire evidently pivoted against the car and were twisted outward. Starting at this point the skid mark was about 21 inches in width, circled outward to a distance of about 4 feet south of the rail, then back and across the car track and over the shoulder on the

north side of the highway to a point just east of the northeast corner post of the culvert. Another skid mark started at a point about $6\frac{1}{2}$ feet south and about 10 inches east of the starting point of the skid mark previously described, and circled inward toward the car track about 2 feet within a distance of 5 feet, following which it turned outward from the track then circled to the left across the car track and over the shoulder on the north side of the highway at a distance of about 4 to 5 feet from the other skid mark, this last described mark varying from 9 to 11 inches in width.

Examination of the tire by the Commission's inspectors showed that on the left or outer side of the tire there was an irregular rent about 15 inches in length, with shreds of fabric pointing outward through the rubber edges, indicating a blow-out from some cause. There also was a 10-inch circular rent on the right side of the tire which appeared to have been made by some object having been forced through from the outer surface. There also were some small holes 1 to $1\frac{1}{2}$ inches in diameter made by some object forced entirely through the tire, which in addition bore evidence of skidding across the street and then having been dragged by the wrecking crew.

Conclusions

This accident probably was caused by a blow-out in the tire on the left front wheel of the bus.

Examination of the tire in question showed evidence of a blow-out having occurred either before or at the time of the accident, and the condition of the tire and the marks on the roadway as well as the damage sustained by the bus and the electric motor car, coupled with the statements of the bus driver and the motorman to the effect that the bus swerved suddenly into the electric motor car when it was only a few feet distant, lead to the conclusion that the tire blew out and caused the bus to head directly toward the electric car, too late for either the bus driver or the motorman to prevent the accident. The reason for the blow-out was not determined; the bus had just passed over $2\frac{1}{2}$ miles of very rough road where the surface was being torn up and vehicles were moving only at their own risk, but no statement can be made as to whether on this rough road the tire sustained damage which subsequently caused it to blow out.

Respectfully submitted,

W. J. PATTERSON,

Director.