

**In re Investigation of an accident which
occurred on the Louisville & Nashville
R. R., near Wheelerton, Tenn., on
May 19, 1917.**

June 23, 1917.

On May 19, 1917, there was a rear-end collision between a passenger train and a freight train on the Louisville & Nashville Railroad near Wheelerton, Tenn., which resulted in the death of 1 employee, serious injury to 1 employee and slight injury to several passengers.

The accident occurred on the Brentwood-North Athens subdivision of the Lewisburg Division of the Louisville & Nashville Railroad. This subdivision, extending from Brentwood, Tenn., to North Athens, Ala., a distance of 95 miles, is a single track line, trains being operated by time-table and train orders. No block signal system is in use, but trains are spaced ten minutes apart at open stations by means of station signals. The telephone is used for transmission of train orders.

Beginning at Delrose station, about 1.4 miles north of the point of the accident, and proceeding southward, the line is tangent for 3,630 feet; this is followed by a 3-degree curve to the west, 1,098 feet in length. The track is then tangent for 1,650 feet, which in turn is followed by another 3-degree curve to the west 1,183 feet in length. It was at the south end of the last mentioned curve that the collision occurred. At this point there is a slight grade ascending southward, and the line passes through a cut varying from 20 to 30 feet in depth, the view of the engineers of an approaching southbound train being limited to about 600 feet.

Southbound freight train 34 No. 73, hauled by locomotive 1310, consisted of 20 loaded and 36 empty cars and a caboose. It was in charge of Engineer Ayers and Conductor Aaron, and left Nashville at 12:05 a. m. The train stopped at Lewisburg, the last telegraph station, and about 29 miles north of Wheelerton, and after receiving train order No. 304, readings:

"No. 1, engine 309, run twenty-five 25 mins.
late Brentwood to Chapel Hill and twenty 20 mins.
late Chapel Hill to North Athens,"

it departed at 4:05 a. m. The train stopped at the north switch at Wheelerton at 5:20 a. m. for the purpose of taking the siding, to let train No. 1 pass, the latter train being due at that station on the above order at 5:35 a. m. After the switch had been opened and the train started to move

forward, an air-hose burst seven or eight car lengths behind the engine, causing the brakes to go into emergency and stopping the train. The hose was replaced, and the signal had been given to move when the rear of the train was struck by train No. 1 at 5:35 a. m.

Southbound passenger train No. 1, known as the Cincinnati-New Orleans Limited, drawn by locomotive 209, consisted of a postal car, baggage car, three coaches and Pullman sleeping cars Gruenwald, Weiner, Canopic and Patanopa, all of all-steel construction except sleeping car Canopic, which is constructed with a steel underframe. The train was in charge of Enginemen Douglass and Conductor Corbett, and after having received order 304, left Nashville at 3:24 a. m., 27 minutes late. The train passed Lewisburg at 4:52 a. m., 27 minutes late, and while running at a speed estimated to have been 45 miles per hour, collided with the rear of train 3d No. 73.

The caboose and five rear cars of the freight train were demolished. Engine 209 and its tender turned to the right and came to rest on its right side clear of the track. The postal car turned to the left and came to rest in an upright position with its forward end down the bank and its rear end resting on the roadbed. The forward truck of the baggage car was derailed, while the remainder of the train remained upon the rails. At the time of the accident it was daylight and the weather was clear.

Conductor Aaron, of train 3d No. 73, stated that his train stopped at the north switch at Wheelerton at 5:20 a. m. After the switch had been opened and the signal given, the engine made two or three exhausts when the brakes went into emergency. Thinking a drawbar had been pulled out he went forward. After leaving the caboose he looked back and saw Flagman Tate eight or ten car lengths back of the caboose, and still walking northward. When he reached the sixth or seventh car from the engine he found a burst air hose. With the assistance of the head brakeman the hose was replaced and the signal to move had been given to the enginemen when the collision occurred. He was looking at his watch at the time, and it was 5:35 a. m. He stated that the flagman left the caboose not later than 5:28 a. m. and under the conditions existing at that time he should have continued to go back until he met train No. 1.

Flagman Tate, of train 3d No. 73, stated that when he felt the emergency application of the brakes he thought a draw bar had pulled out. He immediately took torpedoes and a flag and started back to protect the rear of his train. He had reached a point just south of the south switch at Delrose, and about the middle of the curve when he heard

the whistle of train No. 1. He placed one torpedo, a stop signal, on the rail on the engineman's side, six or eight car lengths south of the south switch; he then dropped back four or five car lengths and began to wave his flag. The engineman did not answer the torpedo signal, neither was he able to attract his attention with the flag. When the locomotive passed him he saw Engineman Douglass in the cab, but both windows were shut and he was not looking out. He continued to wave his flag after the train passed, but there was no one on the rear of the train whose attention he could attract. He estimates the speed of the train to have been about 35 miles per hour when it passed him. Flagman Tate also stated that he had read the train order giving his train time on train No. 1, and had calculated that No. 1 would reach Wheelerton about 5:35 a.m. and that he had about 14 minutes in which to go back and flag. He stated that he knew he would have to flag train No. 1 because he thought his train had pulled out a drawbar. Flagman Tate stated further that the torpedo was placed on the rail 33 rail lengths from the rear of train No. 1, as he counted the rails when he came in after the accident.

Conductor Corbett, of train No. 1, stated that between Chapel Hill and Belrose the train made up about five minutes, and had the accident not occurred the train would have passed Wheelerton at 5:35, right on the limit fixed by the train order. He stated that approaching Wheelerton he was riding in the middle of the first coach when he felt the emergency application of the brakes, which was followed almost immediately by the impact of the collision. He did not hear the explosion of a torpedo, although it is possible one may have exploded without his hearing it. He estimates the speed of the train to have been about 45 miles per hour at the time the brakes were applied. Conductor Corbett further stated that he had been running with Engineman Douglass about five years and that during that time he had always observed torpedo signals.

Baggagemaster Hughes, of train No. 1, stated that approaching the point of accident he was riding in the first coach. He did not hear the explosion of any torpedo and believes that had one exploded he would have heard it. In his opinion the brakes were not applied until the engineman first saw the rear of train No. 73. He stated that so far as he had observed, the air brake system had been working properly.

Flagman Jones, of train No. 1, stated that approaching the point of the accident he was riding in the rear seat of the rear car; he felt the emergency application of the brakes after which the train continued on three or four car lengths before the collision occurred. As soon as the train stopped he started back to flag. On his way back he found Flagman Tate

standing on the ends of the ties on the tangent about midway between the two curves. In conversation with him, Tate stated that he had placed one torpedo on the rail at that point, which Jones estimated to have been about one-third of a mile from the rear of train 3d No. 73, but that it was not heeded by the engineman of train No. 1. Flagman Jones stated that in his opinion Tate was not back a sufficient distance properly to protect the rear of train 3d No. 73.

Postal Clerk Davis, who was in the mail car, stated that he heard the explosion of one torpedo, but heard no signal from the engineman, and upon hearing the torpedo explode he looked out of the car window and estimated the speed of the train to be about 40 miles an hour. Postal Clerk Howard who was working next to him remarked: "That's a one shot," and upon looking out of the window again he noted that the speed of the train had not been reduced. Mr. Davis said that about one minute after the explosion of the torpedo he heard and felt the emergency application of the brakes, and in a few seconds thereafter the collision occurred. In his opinion the torpedo was placed on the straight track.

Postal Clerk Holt stated that he was lying down on a bench in the postal car when he heard the explosion of one torpedo, and the brakes were applied almost immediately thereafter. He stated that he believed the torpedo was placed on the straight track at a point just before reaching the curve.

Postal Clerk Howard stated that he was riding in the forward part of the mail car and that he heard the explosion of one torpedo, and an emergency application of the brakes followed. He thought the torpedo was placed on the straight track just before reaching the curve.

Superintendent Rose stated that he was in his berth at the time of the accident, but dressed quickly and hurried out to ascertain what had happened. Near the head end of train No. 1 he met Flagman Tate, who stated to him that he was out about 3,000 feet on the curve and was hurrying back to get around the curve on to the straight track when he heard train No. 1 approaching. Flagman Tate stated to him that after placing one torpedo on the rail he ran back and did all he could to attract the attention of the engineman, but the latter paid no attention to his signals. Superintendent Rose said that Flagman Tate told him that if he had known who the engineman was he would have thrown something at him, as the same engineman had run by him once before.

Engineman Douglass, of train No. 1, was killed, and Fireman Riggan of the same train was so seriously injured that

he has been unable to make any intelligent statement concerning the accident.

While the evidence is not sufficient to establish definitely just what distance from the rear of his train Flagman Tate was when train No. 1 passed by him, his own statement, the statement of Flagman Jones of train No. 1 that he estimated the torpedo was placed one-third of a mile from the rear of train 34 No. 73, the statement of Postal Clerk Davis that about one minute elapsed between the explosion of the torpedo and the application of the brakes, and the statements of the other mail clerks, clearly establish the fact that Flagman Tate was on the straight track and more than 2,000 feet from the point of collision. For these reasons it is believed that the direct cause of this accident was the failure of Engineman Douglass to observe and obey the stop signals given by Flagman Tate. Any attempted explanation as to why he failed to acknowledge and be governed by the torpedo and flag signal is a matter of mere conjecture, but had the signals been observed the train could have been brought under control, and the accident undoubtedly would not have occurred.

A contributing cause was the failure of Flagman Tate to comply absolutely with rule 99 of the Louisville & Nashville Railroad, and go back an additional distance of 3,000 feet after placing the one torpedo on the rail. In the fourteen minutes intervening between the time his train stopped and the collision, he had ample time to go back much further than he did go.

Engineman Douglass had been running an engine for 30 years, having been promoted to engineman in 1887, and at the time of the accident was 74 years of age. The record shows that he was suspended twice in 1905 and once each in 1906, 1912, 1913 and 1916 for running by danger signals, each suspension varying from 10 to 30 days, and aggregating 90 days. His eyesight and hearing were tested in April, 1914, and pronounced good.

This accident calls attention again to the advantages of an adequate block signal system, and had such a system been in operation Engineman Douglass would have been warned of the presence of train 34 No. 73, and the accident probably would have been averted.