Ritchie
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IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE SOUTHERN RAILWAY AT ELLENWOOD, GA., ON APRIL 15, 1920.

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On April 15, 1920, there was a derailment of a passenger train on the Southern Railway at Ellenwood, Ga., which resulted in the death of 2 employees and the injury of 15 passengers. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

That part of the Atlanta Division on which this accident occurred is a single-track line over which trains are operated by time-table, train orders, and a manual block-signal system. The maximum speed allowed for passenger trains is 48 miles an hour.

The accident occurred about 200 feet south of the station at Ellenwood, approaching which point from the south the track is straight for several miles, followed by a 2-degree curve to the right about 1,320 feet in length, the point of accident being on this curve about 450 feet from its southern end. The grade in this vicinity is ascending, varying from .4 to 1 per cent, but at the point of derailment it is level. The track is laid with 85-pound rails, 33 feet in length, single-spiked and tie-plated, with about 18 to 20 pine, oak and cypress ties to the rail length, ballasted with approximately 14 inches of slag. The elevation on the curve was 3 inches. The gauge, surface and alinement were good.

A public highway crosses the track about 15 feet south

of where the first marks of derailment appeared, and about 25 feet north of the crossing a water tank is located. It is the custom for the enginemen of southbound freight trains to clean their ash pans while taking water at this point, Ellenwood being one of a number of designated points at which ash pans may be cleaned on the main track. The section foreman has instructions to remove the cinders from the track twice a day, and more often when conditions warrant it; as a further safeguard, a bulletin was issued under date of November 12, 1919, by the chairman of the regional safety committee, requiring enginemen to see that the cinders are leveled down before their trains depart. The highway crossing at the point of accident is constructed with a section of rail on its side, inside and parallel with each main track rail, the head of the light rail being placed under the head of and lying against the web of the main track rail. The base of the light rail is toward the center of the track, and against its base and parallel with it, is placed a wooden beam of the same length as the section of light rail. The space between the beams is filled with ballast. This method of construction provides a metal flange-way inside both main line rails. The distance from the top of the main-track rail to the bottom of the flange-way is 2-1/4 inches. The weather at the time of the accident was clear.

Northbound passenger train No. 24, in charge of Conductor Harkins and Engineman Acree, consisted of engine 1326, 1 combination car and 2 coaches. It left Macon, Ga., at 12.20 p. m., on time, passed Stockbridge, the last block station before reaching Ellenwood and 5.9 miles distant therefrom, at 2.23 p. m.,

8 minutes late, and at about 2.35 p. m. was derailed at Ellenwood while running at a speed estimated to have been between 40 and 50 miles an hour.

The first marks of derailment appeared on the ties inside the right-hand rail about 15 feet north of the highway crossing. These marks indicated that only the leading wheels of the engine truck were derailed at that point, and that they continued on the ties until they came in contact with a switch located 198 feet north of the highway crossing. The switch frog and several rails from both the main track and the side track were torn up, resulting in the derailment of the entire train. The engine followed the side track to the left for a distance of 195 feet and then left the roadbed, headed down an embankment and came to rest on its right side with the coupling broken between the engine and tender. The tender came to rest on its right side across the side track with its front end close to the rear end of the engine. The combination car came to rest in an upright position with its front end on the tender cistern, while the other two cars also remained upright, in line with the track; none of the cars was badly damaged. The employees killed were the engineman and fireman.

The investigation developed that at about 9.00 a. m. on the day of the accident the section gang removed what cinders had accumulated near the highway crossing and cleaned out the flange ways, which contained some cinders; at about 12.45 p. m. the section foreman sent one of his men back to again clean the cinders off the track, but for some reason the man did not reach

Ellenwood, 2 miles from where he had been working, until shortly after the derailment had occurred. During the morning the ash pans of the engine of train No. 95 and the two engines of train 1st No. 51 were cleaned. Shortly afterwards the section foreman's son, who was also a section laborer, according to his statement, happened to pass over the crossing and noticing an accumulation of cinders shoveled a part of them out and leveled the remainder down even with the top of the rails. Later the engine of train 3rd No. 51 came to Ellenwood for water and had its ash pan cleaned, and shortly afterwards train 2d No. 51 arrived and entered the south passing track, south of the water tank, in order to permit train No. 25 to pass and to meet train No. 24. After train No. 25 had passed the engine of train 2d No. 51 was uncoupled from the train and backed down the main line to the water tank, and while water was being taken the fireman cleaned the ash pan and the engineman, according to his own statement, leveled the cinders while the engine was standing over them; he did not think they were as high at any point as the top of the rail; and he was positive that none of them could have been dragged on to the crossing when his engine returned to its train. The operator on duty at Ellenwood stated that the engine of train 2d No. 51 remained at the water tank from 8 to 10 minutes and he saw the engineman on the ground with a shovel raking cinders from the ash pan, but he did not notice that the engineman shoveled any cinders off the track. The engine started to return to the passing track at 2.15 or 2.17 p. m., and he thought it must have reached the switch at about the time train No. 24 left Stockbridge.

The operator gave train No. 24 a clear block as soon as that train appeared in sight and then watched it approach; at that time he noticed that the pile of cinders was unusually high and that it looked as if brake rods had dragged through the center, dividing it into two piles which were high enough to be struck by the pilot of an engine. As the train crossed the highway he saw the pilot of the engine plow through the pile of cinders, scattering them over the passenger landing and to each side of the track. The engine seemed to rise up about 1 foot and on coming down the forward engine truck wheels were derailed. When the flagman of train No. 24 looked at the track after the accident he noticed that the pile of cinders was about 1 or 1-1/2 inches above the top of the rails and that the top of the pile was smooth. Other members of the crew of train No. 24 were also of the opinion that the accident was due to the engine striking the cinder pile. The crew of train 2d No. 51 did not think the pile of cinders caused the accident but they made no examination of the track, and expressed no opinion as to its cause, although the engineman said that the appearance of the pile of cinders was the same as when he left it. When the section foreman arrived at the scene of the accident the cinders were being removed from the track; after an examination of the track he concluded that the accident was due to the cinders filling up the flange way at the crossing, causing the engine truck wheels to climb the rail.

Examination disclosed no defect in the track or equipment which could have contributed to the accident.

This accident was caused by the engine of the derailed

train striking a pile of cinders between the rails.

The investigation disclosed that after the cinders had been removed from the track at this point by the section crew in the morning, the ash pans of three engines had been cleaned; a part of the accumulation of cinders from these engines had been removed by the section foreman's son, and then the ash pans on two other engines had been cleaned prior to the accident.

Engineman Beauford was in charge of the last engine which had its fire cleaned at this point and while he claimed to have leveled the cinders down at least to the top of the rails this claim is not substantiated by the statements of the operator. When it is considered that Engineman Beauford's engine barely had time to return to its train and clear the main track before train No. 24 entered the block at Stockbridge, it seems probable that the statement of the operator is more nearly correct, and that in his haste to return to his train, Engineman Beauford failed to have the cinders properly leveled in accordance with the requirements of the bulletin of November 12, 1919, which reads as follows:

> BULLETIN,
> ALL ENGINEMEN
> With the approach of cold weather, it is of extreme importance that you see that cinders cleaned from ash pans are leveled down before your train leaves such cleaning point to avoid probability of cinders being thrown on rails by pilots of other locomotives and resulting in derailment.

Engineman Beauford was employed as a fireman in 1908 and promoted to engineman in 1917. His record was good.

None of the employees involved in this accident had been on duty in violation of any of the provisions of the hours of service law.