

September 9, 1912.

Derailement on the Illinois Central Railroad near Courtland, Miss., July 12, 1912.

On July 12, 1912, there was a derailement on the Illinois Central Railroad near Courtland, Miss., resulting in the injury of 17 passengers and 1 section man. After investigation into the nature and cause of this accident, I beg to submit the following report.

Train No. 3, known as the "Panama Limited", runs between Memphis, Tenn., and New Orleans, La. On the date of the accident it was hauled by engine No. 1061, and consisted of one mail car, one baggage car, one combination car, one day coach, one chair car, one dining car, three Pullman sleeping cars and one observation car. The train was in charge of conductor King and engineman Law, and was due at Courtland at 11:31 a.m., but it was about 2 hours and 15 minutes late. It was derailed 3/4 of a mile north of this point at 1:45 p. m.

The three Pullman cars and the observation car were derailed, tearing up the track for about 500 feet. Just before crossing a trestle 15 feet high the second and third Pullman cars and the observation car plunged down a 15 foot embankment on the east side of the track. The Pullman car next to the dining car was dragged across the trestle and then broke loose, plunging down the fill. All four derailed cars turned over and came to rest lying on their left sides.

Engine No. 1061 is of the Pacific type, with trailer trucks, and weighs 96 tons. Six of the cars were of all steel construction, the dining and Pullman cars being of wooden construction with non-telescoping ends.

This Division of the Illinois Central is a single track line running north and south. Trains are operated under train order system, train orders being transmitted by telegraph and telephone and train order boards being used to space trains ten minutes apart at open telegraph offices.

The track was laid with 75-lb. rails, 30 feet long, single-spiked, on treated pine and oak ties, the majority of the ties being pine. The track was insufficiently ballasted and poorly maintained, and a large number of ties in this vicinity were decayed. A section crew was at work on the track at this point, lining it up and putting in ballast. As train No. 3 approached no warning was given to the engineman of a dangerous condition of the track; and no slow orders had been issued and there were no speed restrictions covering this piece of track.

From Batesville, a station about 5 miles north of where the derailement occurred, there is an ascending grade of one per cent for a distance of about 3 1/2 miles; then there is a level stretch

for about one-half mile, and then a descending grade of one per cent for about a mile to point where the accident occurred. At that place the track is straight and the view is unobstructed.

Engineman Law stated his first knowledge of any trouble was when the brakes were applied; he attributed this to a bursted air hose; looking back he saw flying dust and then knew something was wrong. The engine was working steam, the throttle being only partly open, and he thought the train was running at about 40 or 45 miles per hour. He saw section men at work but no caution signals were displayed, and the track appeared to be in good condition as he noted no jolts in passing over it. He saw no tools lying on or near the track. After the accident he examined the track and train but found nothing that would indicate the cause of the derailment. His impression was that the track had buckled under the train.

Fireman Gilbert stated that the first indication he had of an accident was when the brakes were applied and the signal whistle was blown. He thought this was caused by a bursted air hose. As the train approached the place of the derailment he saw men moving off from the track ahead, with shovels and picks in their hands. The train rode smoothly and the engine passed the men. The engine was working a little steam and he thought the train was running at a speed of about 40 miles per hour.

Conductor King stated that he was sitting in the front end of Diner, the sixth car from the engine, and the first he knew of anything wrong was when the dining car swung to the westward; then the train parted and the air brakes were applied. He looked out the rear of the diner and saw the Pullman cars turning over. The train ran about 700 feet after parting. He estimated the speed to be about 40 miles per hour. He made an examination of the train and track and could find nothing which might have caused the derailment. He attributed the derailment to the extreme heat; the temperature was 98 to 100 degrees and he thought the heat had caused the track to buckle. After the accident, at the south end of the bridge, he saw a track-jack which looked as though it had been run over, the stem being broken off.

Section foreman Hartfield stated he had charge of roadway between Batesville and Courtland, a distance of 8 miles. He was putting in ballast, pulling joints, and straightening track at the place where the accident occurred and was standing about three rail lengths north of the point where the cars were derailed. On account of scant ballast he had no difficulty in lining track with four men, the ties being embedded in the ballast only about half their depth, and he had difficulty in finding ballast to fill in with at this point. He did not notice any rolling of the train as it approached, and he saw no part of the train equipment that was dragging. He thought the train was running at about 50 miles per hour. There were no signals displayed requiring low speed. He stated this section was laid with 75-lb. steel rails, which,

in some places, were surface bent and badly worn, and some rails were split in the ends. Many ties were decayed, in some cases there were seven or eight decayed ties to the rail. He had new ties to put in and these he placed in the track as opportunity presented. He had one track-jack in use while repairing this section of roadway; it last was used on the bridge. After the accident he saw this jack with stem bent, head broken, and latch gone; and he was of the opinion that while lying on the ground it was struck by one of the derailed cars. He also saw a lining bar wrapped around a set of trucks off from one of the derailed cars; but he did not believe that this bar could have caused the derailment.

Section laborer Johnson stated that he was assisting in lining up track north of bridge about where cars turned over, using a track-jack at this point. He used the track-jack last at about the middle of the bridge, and afterwards carried it to the north end of the bridge and laid it on the ground about four feet from the track. He was standing on the east side of the track near the bridge while the train was passing, and was struck by a derailed Pullman car.

Supervisor Hoar stated he was over this piece of track the preceding day, and he ordered the section foreman to work on the track where derailment occurred. He did not think, however, that the track at that place was in bad enough condition to require trains to be run over it at reduced speed. In his opinion, the track did not buckle; he thought the train struck something on the rails.

The broken track-jack and the lining bar wrapped around the truck of one of the derailed cars have been suggested as possible causes of the derailment. But as the section foreman and his helpers stated that the track-jack had been placed about four feet from the track at the end of the bridge, and as the engineman saw nothing on the track and the engine and first six cars were not derailed, there can be little doubt that the track-jack was not in use at this time, and it is not believed that the derailment was caused by tools in use or lying on the track.

While it is impossible to establish with certainty the cause of this derailment, it is believed that the track structure was inadequate to support this heavy train running at high speed. The men in charge of this track were well aware of the fact that the rails were worn, many ties were decayed and the track at this place was not properly ballasted; and it is believed the section foreman exercised poor judgment in not displaying caution signals for approaching trains when work was being done on track in this condition.

This investigation also leads to the conclusion that the general condition of track in this vicinity was such that heavy trains could not be run over it safely at high speed. The track supervisor had recently been over this section and was familiar

with its condition. Many new ties had been distributed and plans had been made for laying new rails throughout this section. Until this work of repairing or rebuilding the track had been completed, speed restrictions should have been established by the railroad company.

Unless steps are taken to ascertain the limit of speed at which trains can be safely operated under existing conditions and to provide an adequate margin between this limit of safety and the highest speed permitted or attained, accidents of this character may be expected to occur.

Respectfully submitted,

Chief Inspector of
Safety Appliances.