

No. 218

November 4, 1914.

**IN RE INVESTIGATION OF ACCIDENT WHICH OCCURRED ON THE CHICAGO
ROCK ISLAND AND PACIFIC RAILWAY NEAR GALLOWAY, ARK.,
ON AUGUST 31, 1914.**

On August 31, 1914, there was a derailment of a passenger train on the Chicago, Rock Island & Pacific Railway near Galloway, Ark., resulting in the death of 2 employees and the injury of 26 passengers, 3 employees, and 1 Pullman porter. After investigation of this accident the Chief of the Division of Safety, reports as follows:

Westbound passenger train No. 45, en route from Memphis, Tenn., to Hot Springs, Ark., consisted of 1 combination baggage and mail car, 1 combination coach, 1 coach, 1 dining car, 1 parlor car, and 3 sleeping cars, hauled by locomotive No. 806, and was in charge of Conductor Nelson and Engineman Jones. All of the cars were of steel construction except one sleeping car and the parlor car, which were of wooden construction, and the dining car, which had a steel underframe. This train left Memphis at 10 a.m. with an order to run 15 minutes late to Little Rock, left Brinkley, 62.9 miles west of Memphis at 12:21 p.m., 33 minutes late, passed Kerr, 120.1 miles west of Memphis at 1:42 p.m., 27 minutes late, and was derailed at 1:47 p.m. at a point about 4.9 miles west of Kerr, or about a mile west of the east passing track switch at Galloway, while running at a speed estimated by the train crew to have been from 20 to 25 miles per hour.

The Arkansas Division, on which this accident occurred, is a single-track line, and trains are operated by the train-order system without block signals. The track rails were of 90-pound steel, 33 feet long, laid in March, 1913, with 20 cross-tied pine ties under each rail, single-spiked with tie-plates, with about 10 inches of gravel ballast. At the point of accident the track was straight and in good condition, having recently been reinforced with six inches of gravel and with new ties.

Inspection showed that the track for a distance of 13 rail lengths east of the mile board, located about a mile west of Galloway station, was completely shifted north from its bed, turning over three rails on the north side, two of the rails being so badly bent that it was necessary to replace them with other rails; the ties for six rail lengths were practically destroyed. At the initial point of derailment, marks on the inside of the web and base of the west end of the first rail, extending a distance of 20 feet, indicated that the rear truck of the sixth car and the forward truck of the seventh car dropped inside and rode the rail for that distance. The three rear cars apparently remained upright for a distance of about 500 feet, then broke loose from the train and turned over on their sides to the north, the head end of the train continuing on for a distance of about 500 feet. Careful examination of the equipment failed to show anything that could have contributed to the derailment. The weather at the time was clear and very hot.

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The two employees killed were bridgemen working on the cattle guard near the station board. They had stepped aside to permit train No. 45 to pass and were crushed under the seventh car of that train when it turned over on its side.

Engineman Jones of train No. 45 stated that after leaving Lonoke, a station 9 miles east of Kerr, the speed of his train was about 50 miles per hour, but on account of work being done on the track he reduced the speed to about 40 or 45 miles per hour between Kerr and Galloway. West of Galloway some men were at work raising the track and when he reached them he reduced the speed of his train, but after passing them began again to work steam. When he approached the cattle guard at the road crossing west of Galloway he shut off steam but when the foreman in charge of the work being done on that piece of track gave him an all-right signal he began to work steam again. About this time he felt the train jerk, and on looking back observed the sleepers turning over, the speed of his train at this time being about 20 or 25 miles per hour. He stated that he had been watching the track carefully on account of having received a slow order a few days previous to look out for sun kinks where the track is being raised, and so far as he knew the track was clear of any obstruction. He stated that in his opinion his derailment was caused by the rails expanding, on account of the excessive heat, to such an extent that when the weight of train No. 45 ~~pass~~ was placed on them they kinked.

Conductor Nelson of train No. 45 stated that he was riding in the fifth car from the engine when he felt the front trucks of that car jerk around, followed by a similar movement of the rear trucks, which led him to believe that the track kinked under the fifth car. He stated that the speed of the train at the time was about 25 miles per hour.

Section Foreman McKeever stated that the track in this vicinity was in good condition. A few days prior to this accident it had been raised and gravel ballast and new ties put in. After the derailment he examined the track and found one rail with an indentation in the joint and at a point about one-fourth its length from the joint was a short bend, apparently a kink.

Extra Gang Foreman Davis, who had charge of the work being done where the accident occurred, stated that the track was raised about 10 inches and a little more than the usual amount of ballast left between the ties, and was in good condition. He stated that he believed the track at this point was good for a speed of 50 miles per hour, except during the heat of the day, when it would be necessary to reduce speed to about 20 miles per hour. He further stated that no tools were left on the track, and in his opinion this accident was caused by the track kinking when train No. 45 passed over it.

Roadmaster Barnson stated that he walked over this piece of track two days previous to the accident, and while he did not pay any particular attention to the expansion of the rails,

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found that the north rail had creased a little more than the south rail and that it appeared to be tighter.

It is believed that this accident was caused by the extremely hot weather prevailing at the time expanding the rails to such an extent that when the weight of train No. 45 was placed upon them they kinked, resulting in the derailment.

It is to be noted that train No. 45 passed Kerr at 1:42 p.m. and was derailed at a point 4.9 miles distant therefrom at 1:47 p.m. This, taken in connection with the fact that after derailment the train ran for a distance of 1,000 feet, would seem to indicate that the speed of train No. 45 at the time of the derailment was in excess of 20 or 25 miles per hour.

All of the employees involved in this accident were experienced men with good records.