INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN ACCIDENT WHICH OCCURRED ON THE MISSOURI PACIFIC RAILROAD NEAR MALVERN, ARK., ON APRIL 9,1932.

May 11, 1932.

To the Commission:

On April 9, 1932, there was a derailment of a freight train on the Missouri Pacific Railroad near Malvern, Ark., which resulted in the death of four trespassers.

Location and method of operation

This accident occurred on the Little Rock District of the Arkansas Division, which extends between North Little Rock and Texarkana, Ark., a distance of 146.05 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time-table, train orders, and an automatic block-signal system. The point of accident was within the yard limits of Malvern, 3,844 feet north of the station; approaching this point from the north, the track is tangent for more than 1 mile, with a descending grade of 0.35 per cent at the point of derailment. The track is laid with 90-pound rails, 33 feet in length, averaging 30 treated hardwood ties to the rail-length, practically all of which are tie-plated, and is single-spiked and ballasted with washed gravel to a depth of approximately 10 inches; the track is well maintained. The maximum speed permitted for freight trains is 45 miles per hour.

The weather was clear at the time of the accident, which occurred about 4.45 p. m.

Description

Southbound freight train No. 67 consisted of 71 cars and a caboose, with an auxiliary water car next to the engine, and was hauled by engine 1539, in charge of Conductor McDonald and Engineman Stewart. This train departed from North Little Rock at 3.30 p. m., three hours late, and was derailed near Malvern, 44.54 miles south of North Little Rock, while traveling at a speed estimated by the crew to have been between 35 and 40 miles per hour.

The locomotive and first 13 cars were not derailed and came to rest with the thirteenth car 2,697 feet south of the point of accident. The fourteenth car was parti-

No. 1761
Missouri Pacific R.R.
Malvern, Arkansas
April 9, 1932

Direction of eastbound train

Last tie mark

67 ft.

Point of accident

94 ft.

Point coupler found

1344 ft.

44.54 miles

Point of accident
Malvern

Section

ally derailed and stopped about 500 feet south of the point of accident, while the fifteenth to the thirty-first cars, inclusive, were derailed and piled up within a space of approximately 225 feet. The four trespassers killed were riding on the fifteenth car.

Summary of evidence

Engineman Stewart stated that a test of the air brakes was made by the car inspectors before leaving North Little Rock and he was informed all brakes were operating; he also applied the train brakes and came to a stop on leaving the yard, and there was no indication of any defective brakes. The next application was made to reduce the speed of the train at Hot Springs Junction; this application was released while moving at a speed of about 20 miles per hour and the brakes functioned properly at that time. A 9-pound reduction was made when approaching Malvern, at a speed of 35 to 38 miles per hour, and a few seconds after the brake-pipe exhaust had ceased blowing he felt a slight jerk in the train, and the brakes applied in emergency, and as he looked back he saw the cars being derailed. He stated that the undesired emergency indicated to him that the train had parted, and that the jerk he felt might have been caused by a quick-action triple, although it felt as it often does when handling a train composed of loaded and empty cars, with the slack running in and out. On going back to the wreckage he found the coupler missing from the rear end of the thirteenth car and saw a coupler with a broken yoke lying in the center of the track, north of the fourteenth car; the fracture appeared to be new and clean, and he found nothing about the train that might have caused the coupler to come out. After the derailment the rear portion of the train was hauled back to Gifford, 4.10 miles from Malvern, and when he was able to get his engine by the derailed cars Engineman Stewart proceeded to that point and made several tests of that portion of the train, in the presence of officials of the company, in an endeavor to locate a reported quick-action triple, but to no avail, and after these tests this portion of the train was returned to Malvern, the brakes functioning properly. At Malvern the two portions of the train were joined together and taken to Texarkana, and again there was no indication of a defective triple, although the brakes were used several times. Fireman Evans' statements corroborated those of Engineman Stewart, while Head Brakeman Dillon brought out nothing further of importance.

Conductor McDonald stated that no stops were made between North Little Rock and the point of accident, but that the brakes functioned properly when used to reduce

speed at Benton, near [illegible] Junction. He estimated the speed to have been from 35 to 40 miles per hour when he felt the brakes applied in service as if for the purpose of reducing speed; the brake pressure, wearing for the check of the check movement [illegible] he felt that further in the train which he was at something had happened. He got out of the caboose and went ahead looking for something dragging from the train; he found ties marked as though something had dragged over them, and about one car-lengths farther ahead the track was torn up; he went around the derailed cars and about 40 to 50 feet beyond where he found a drawbar in the middle of the track, the broken end attached to the coupler appeared to be a new break as one could find no flaws in the metal. Conductor McDonald further stated that from time to time he looked at the air pressure as shown on the caboose gauge, [illegible] 40 pounds. He considered Engineman Stewart very good in handling old trains, and said the train had been handled without any severe jolts or jerks.

Brakeman Hand stated that he had been watching the brake and also the air gauge from time to time and that he saw nothing wrong; the gauge recorded full pressure at all times and the train handling appeared to be almost perfect. His estimate of the speed just prior to the accident was 40 miles per hour. Approaching Malvern he felt an ordinary service application of the train brakes which checked the speed slightly, and in a very few seconds he felt a hard severe application and the derailment came to a stop immediately thereafter. He did not make any examination to determine the cause of the accident, nor did he see the drawbar lying on the track; he was present when the brakes were tested at Gifford and had his knowledge no defective brake valve was found. He did nothing of this nature between Gifford and Malvern with the train to the terminal.

Trainman Hartnett stated that he made an examination of the train for the rear of the caboose, but found no indication of defective brakes. He did, however, find a piece of the drawbar in the center of the track some distance ahead of the caboose, which he thought had been made by [illegible]

[illegible] Price, on leaving Malvern, shut his engine down to pull the road down to Gifford, or from Gifford down to Malvern; he used the automatic application of the brakes, and on the second application at Gifford, the brakes went to undesired emergency, which indicated to him there was a defective brake in this [illegible] train.

[illegible]

Car Inspectors McNutt and Lewter stated they made the required air-brake test on train No. 67 before it departed from North Little Rock and found all brakes operating.

Section Foreman Heath stated that he arrived at the scene of the accident about 5.45 p. m. and made an examination to ascertain the cause of the accident; he found various marks on the ties which he thought were caused by something that had fallen from the train to the center of the track, and after finding the detached drawbar lying on the track, he decided that was what had made the marks and caused the derailment.

General Car Inspector Dysart stated that his inspection of the drawbar and broken yoke disclosed that the break was new, as no flaws were found in the metal, and he thought the yoke had been broken by a severe jerk; he did not know whether this jerk was caused by a defective triple valve but it was his opinion that if a triple valve had caused the break it would have to be located toward the rear of the train. He also stated that he was present at a series of tests at Gifford trying to locate a defective triple, but that no undesired emergency was obtained in these tests or in a running test made when leaving Gifford.

The first mark in the vicinity of the accident was on the top of a tie near the center, 201 feet south of mile post 338; this mark was about 10 inches wide and indicated that the tie had been struck by some heavy object. The next mark was 39 feet south of this point and also was on a tie, just inside the left rail; this was a light mark, as was also the case with marks found on three other ties farther to the south. The first mark of a wheel consisted of a flange mark on the inside of the east rail and the outside of the west rail, 87 feet south of the first tie mark; these marks led to the left for a distance of 14 feet, and from then on the track was torn out for a distance of 261 feet. The coupler which had pulled out of the rear of the thirteenth car was found in an upright position between the rails 401 feet south of the first marked tie, while the back end of the coupler yoke was found approximately opposite the first marked tie. This coupler came from Wabash box 73189; this car had arrived in the yard at North Little Rock on the afternoon of the accident and departed in train No. 67 about 55 minutes afterwards, no exceptions having been taken or repairs made. The coupler involved was a type D ARA coupler with Cardwell draft gear. The yoke was broken at the back end where bent to form the top and bottom straps; the break was new, with no flaws visible, and the springs, spring rods, and other parts of the draft gear appeared to be in good condition.

Conclusions

This accident was caused by a pulled-out coupler.

Examination of track and equipment after the accident showed that the coupler had pulled out from the car of the thirteenth car; the back end of the coupler was found opposite the first mark which appeared on the center of the track, made by the dragging coupler, while the coupler itself was found about 400 feet farther south. Inspection of the car both before and after the accident failed to disclose a defective condition. It did not appear that the train had been handled roughly en route. Tests made of the undamaged rear portion of the train failed to disclose anything wrong with the automatic system, although the engineman who pulled the rear portion of the train away from the scene of the accident said the brakes went to undesired emergency, indicating to him that there was a defective valve in this portion of the train.

All of the employees involved were experienced men and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

A. P. SCULLY,

Director.