

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED
ON THE KANSAS CITY, MEXICO AND ORIENT RAIL-
ROAD NEAR PARET, TEXAS, ON
AUGUST 24, 1920.

September 24, 1920.

On August 24, 1920, there was a derailment of a passenger train on the Kansas City, Mexico & Orient Railroad near Paret, Tex., which resulted in the death of 2 employees. After investigation of this accident the Chief of the Bureau of Safety reports as follows.

The Second District of the Texas Division, on which this accident occurred, is a single-track line extending from Hamlin, Texas, to San Angelo, Texas, a distance of 111.56 miles. Trains are operated by time-table and train orders, no block-signal system being in use. The accident occurred at the east passing-track switch at Paret, nearly 1,300 feet east of the station; this passing track is on the south side of the main track. Approaching the point of accident from the east the track is tangent for a distance of 5,146 feet, followed by a 2-degree curve to the right 570 feet in length, then a tangent 1,159 feet in length to the point of accident. The grade is .125 per cent ascending for westbound trains. The track is laid with 70-pound rail, 33 feet in length, with about 20 pine ties to the rail-length, no tie-plates being used. The ballast consists of natural soil which at the point of accident was sandy. The surface and alignment were maintained in fair condition. The weather at the time of the accident was clear.

Westbound passenger train No. 3, en route from Albus, Okla., to San Angelo, Tex., consisted of engine 502, 1 combination mail and baggage car, 1 baggage car, 3 coaches, and 1 business car, in the order named, and was in charge of Conductor Robertson and Engineer Watts. This train left Hamlin, the initial station on this division and the last open telegraph office east of the point of accident, at 5.20 p. m., 30 minutes late, made several station stops en route, and at about 7.10 p.m. was derailed at the east passing-track switch at Paret while traveling at a speed estimated to have been about 20 or 25 miles an hour.

The engine came to rest on its left side, between the main track and the passing track, with its head end about 215 feet west of the switch points. The tender and the first two cars in the train were derailed, but remained in an upright position along the line of the passing track and were only slightly damaged. The employees killed were the engineer and fireman.

Conductor Robertson, who was riding in the fourth car, stated that his first knowledge of anything wrong was when he felt that the train was derailed, followed by a sudden application of the air brakes and another shock. About 20 minutes afterwards he made an examination of the switch and found the switch points lined for the passing track, the switch target showing red to the east, and the lever out of the socket and lacking about 1 inch of being in its proper position for the opened switch, he operated the lever and without difficulty was able to move it the additional distance necessary to place it in the socket. He stated he found the switch lock on the ground nearby. The switch points and connecting rods appeared to be in good condition.

Brakeman Nettleton, who was riding in the rear platform of the fifth car, said he felt an emergency application of the air brakes, followed by a jar. He saw the switch target immediately after the accident showing red to the east, but did not make an examination of the track or switch.

Postal Clerk Lynn, who was standing in the doorway of the first car, stated that his first intimation of anything wrong was when he heard a noise which sounded to him as if iron was striking iron this was at about the time the rear of the engine passed the switch. On looking ahead he noticed that the switch stand was quivering and as his car passed the switch stand he realized that the train was derailed. He did not notice the position of the switch target. He thought there was an emergency application of the brakes before the derailment occurred. Afterwards he saw the switch lock on the ground and noticed that the staple on the stand was broken. The first thing noticed by Express messenger Elliott, who was in the second car, was an emergency application of the air brakes.

Superintendent Cleary, who was riding in the business car on the rear of the train, said he felt an unusual jar, followed immediately by two additional shocks. He verified the conductor's statement about the switch lever being out of the socket, the target showing red to the east, and the switch points being lined for the passing track, saying that he examined the switch immediately after the accident. He also said the lock was broken and would not operate. He thought the accident was due to a cocked switch, this was also the opinion of the other members of the train crew.

Two employees of an oil mill located near the scene of the accident, who were eye-witnesses, stated that the tender seemed to swing back and forth, following which the engine lurched to the right and then to the left, turning over on its left side. It was their opinion that the engine was following the line of the main track when it turned over.

The switch at which this accident occurred is a No. 10 turnout, the stand being of the Elliott high-circle type, located on the left side of the track for westbound trains. Yardmaster Richardson stated that the last time the switch was used prior to the accident was on the forenoon of the preceding day, at that time he personally closed and locked the switch after it had been used. He stated that he jerked the lock and was positive that it was securely locked and in proper working condition.

Section Foreman Webster, who passed the switch on the afternoon before the accident, stated that the switch points at that time seemed to fit properly, but that he did not examine the lock. After the accident he found that the left main-track rail and the right passing-track rail had been pulled together for a short distance, beginning at the frog. The lock in question had been placed on the switch stand on July 29, 1920, by Section Foreman Ledbetter, who stated that he had not made an examination of the lock or switch since that date. Two freight trains passed Perot several hours before the accident occurred, and at that time the crews of these trains did not notice anything wrong with the switch.

Careful examination of the engine and other derailed equipment failed to disclose anything which could have contributed to the derailment. The investigation disclosed that the safety chains had been pulled loose from the hangers on the forward tender truck, while the hangers on the rear truck were bent toward the left.

The swinging of the tender noticed by the eye-witnesses, and their statement that the engine seemed to be on the main track when it turned over, coupled with the manner in which the draw bar between the engine and tender was twisted, the tearing loose of the safety chain between the engine and tender, and the bending of the safety chain hangers to the left, indicates that the engine passed over the switch and that the tender was the first portion of the train to be derailed, the trucks being slued to the left. All of these facts, taken in connection with the vibration of the switch-stand noticed by the postal clerk, the broken lock on the ground, and the position of the switch lever and switch points after the accident, indicate that the switch points opened as the engine was passing over them, due to the fact that the switch was not properly closed and locked.

This accident was caused by a cocked or partly opened switch.

The switch was last used on the preceding day at which time it was closed and locked by a yardmaster and appeared to be in good condition in every respect, while the crews of two trains which passed a few hours previous to the

accident noticed nothing wrong. The reason for its not being properly closed and locked at the time of this accident was not ascertained.

All of the employees involved in this accident were men of experience, with clear records. The train crew had been on duty 9 hours and 40 minutes after an off duty period of 15 hours and 5 minutes, while the engine crew had been on duty 2 hours and 30 minutes after an off duty period of 6 hours, previous to which they had been on duty 5 hours and 55 minutes after having been off duty more than 28 hours.