

No. 216

September 17, 1914.

**IN RE INVESTIGATION OF ACCIDENT ON THE DENVER & RIO GRANDE
RAILROAD AT THISTLE, UTAH, ON AUGUST 14, 1914.**

On August 14, 1914, there was an accident on the Denver & Rio Grande Railroad at Thistle, Utah, which resulted in the injury of one employee who subsequently died. After investigation of this accident the Chief Inspector of Safety Appliances reports as follows:

Westbound extra 1197, consisting of 40 loaded freight cars and a caboose, hauled by locomotive 1197, and in charge of Conductor Sprague and Engineman Barrie, left Helper, Utah, at 2:00 p.m. This train arrived at Colton, set out 2 cars and picked up 20 loaded cars, left Colton at 6:00 p.m., and at Soldier Summit set out 3 cars and picked up 18 loaded cars, leaving there at 7:50 p.m. with a total of 73 loaded cars and a caboose, all equipped with air brakes. At Gilluly a stop was made to oil the wheels, and at Harrows another stop was made to inspect the train. At a point about two miles west of Harrows the coupler on the west end of the fourth car ahead of the caboose pulled out, causing the brakes to go into emergency, which in turn caused the coupler on the east end of the sixteenth car from the engine to pull out, thus leaving the train in three parts. The forward portion of the train consisted of 18 cars, the middle portion of 53 cars, and the rear portion of 4 cars and the caboose.

The rear brakeman was sent back to flag, while the engine crew and head brakeman proceeded to Thistle with the forward portion of the train for the purpose of leaving it there and then return for the remainder of the train. The conductor remained with his train and began to set the hand brakes on the middle portion, but before a sufficient number could be set, the slack from the rear caused it to start down the grade toward Thistle, about seven miles away, where it collided at about 10:30 p.m. with a car of extra 1197 being placed on the siding.

A short distance east of Thistle there is a 5 degree curve, and when the runaway cars had reached a point about 925 feet in on this curve, 19 cars were derailed and thrown into the river, totally destroying them and their contents. Twenty-seven cars continued toward Thistle and collided with a car of extra 1197, as above stated. Twenty-four of these cars were thrown into the river and practically destroyed. At the point of derailment the track was considerably torn up.

That part of the Denver & Rio Grande Railroad on which this accident occurred is a double-track line. No block signal system was in use. Freight trains when following each other are required by rule to keep five minutes apart. This accident occurred on a descending grade of from 1½ to 2% for westbound trains. The weather at the time was clear.

Conductor Sprague of extra 1197 stated that his train was drifting along about 15 or 16 miles per hour when it broke apart.

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He got out and set the brakes on the rear portion of his train while the rear brakeman went back to flag. Conductor Sprague then started toward the head end to see what the trouble was and found the head brakeman on the middle portion of the train setting the hand brakes, and had the brakes set on eight cars when he reached him. Conductor Sprague directed him to proceed to Thistle with the forward portion of the train and then built a fire at the front end of the middle cut of cars so the engine-man could locate them when he returned. He then began to set the hand brakes, using a pick handle as a club, but before he could get a sufficient number set the cut started. He remained on the cars setting brakes until they ran a distance of about 200 yards, but when he saw he was unable to check their speed he got off. In all he thought the brakes on 25 or 30 cars had been set when he got off. He stated that the cars started to move about 25 or 30 minutes after the train broke apart, or about 15 or 20 minutes after the forward portion of the train started for Thistle. In his opinion the cut of cars were started by the air leaking off on the rear end of the cut, allowing the slack to run forward. He could assign no reason why the train should break apart, as no hand brakes were set on the rear nor no sudden application of the air brakes. When he instructed the head brakeman to proceed to Thistle he knew there was not a sufficient number of hand brakes set on the middle portion of his train to hold it but thought he could set a sufficient number to keep it from starting.

Engineman Barrie of extra 1197 stated that the air brakes were tested at Soldier Summit and no bad leaks found, but in order to steady the train going down the grade he had the brakeman set about ten hand brakes after leaving Gilluly. He stated that he experienced no difficulty whatever in holding the train with the air brakes, the setting of the hand brakes being only a precaution. After the train broke apart the head brakeman came to the front end of the train and said the conductor had issued instructions for them to take the front end of the train, to Thistle and set the cars out there on a track known as the San Pete line. Upon their arrival at Thistle this track was found to be occupied and they were placing one of the cars on the bad order track when they heard the runaway cars approaching. Brakeman Hannigan was on the head end of the car and Engineman Barrie was on the rear end. Engineman Barrie stated that he called to the brakeman, got off the car himself, but before Brakeman Hannigan could do so the collision occurred. He further stated that he had slowed the train down to about 15 miles per hour, released the air brakes, and had gone about 45 car lengths when the break occurred. He did not know what caused the train to break apart as there was no jerk and the air was released at the time.

Rear Brakeman Nelson of extra 1197 stated that he was riding on the second car from the caboose when his train broke apart, and immediately went back about a half mile to flag. When extra 980 came up to where he was standing, the fireman remained to flag while he proceeded with that train to the point where the caboose of extra 1197 was standing. Brakeman Nelson stated

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that upon their arrival at the caboose he walked to the head end of the rear cut of cars, picked up a broken end sill, and had started ahead when he met Conductor Sprague, who stated that the middle cut of cars had gotten away from him. He thought about 20 or 25 minutes elapsed from the time extra 1197 broke apart to when he returned with extra 980.

This accident was caused by the middle section of a train, composed of 53 loaded cars, being left on a heavy descending grade with an insufficient number of hand brakes set, for which Conductor Sprague is at fault. Before sending the forward portion of the train to Thistle he knew that there had not been enough hand brakes set to hold the remaining cars. On account of his experience in railroading on heavy mountain grades he was fully acquainted with the danger existing, and should not have allowed the engine crew and head brakeman to proceed to Thistle, trusting that he would be able, by himself, to set hand brakes enough to hold the cars until their return. If immediately after the train parted, a sufficient number of hand brakes had been set, this accident undoubtedly would have been averted.

Conductor Sprague was employed as a brakeman in February 1906, and was promoted to conductor in November 1907. His record was good, and at the time of the accident he had been on duty about 9 hours, after a period off duty of over 16 hours.