

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
CENTRAL OF GEORGIA RAILWAY NEAR BROUGHTON, GA., ON  
OCTOBER 15, 1925

November 18, 1925.

To the Commission.

On October 15, 1925, there was a derailment of a passenger train on the Central of Georgia Railway near Broughton, Ga., which resulted in the death of two employees.

## Location and method of operation

This accident occurred on the Covington District of the Savannah Division, which extends between Gordon and Porter-dale, Ga., a distance of 85.5 miles, and is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The speed of passenger trains is limited by time-table rule to 35 miles an hour. The accident occurred at a point approximately 2,280 feet west of the station at Broughton; approaching this point from the west the track is tangent a distance of more than 1 mile, followed by a 4° curve to the right 1,072 feet in length, the accident occurring on this curve at a point 712 feet from its western end. The grade for eastbound trains is undulating for some distance and is then from 0.70 to 1.21 per cent ascending for a distance of 1,980 feet, being 1.01 per cent at the point of accident.

In the vicinity of the point of accident the track is laid with 60-pound rails, 30 feet in length, with an average of 16 treated pine ties to the rail-length and is single-spiked, a few tie-plates are in use, while four-hole angle bars are used at rail joints. The track is surfaced to the top of the ties with the clay soil composing the roadbed and the general maintenance is good.

The weather was clear at the time of the accident, which occurred at about 9.52 a.m.

## Description

Eastbound passenger train No. 20 consisted of one combination baggage and passenger car and one coach, both of wooden construction, hauled by engine 340, and was in charge of Conductor Cooper and Engineman Willums. It left Porter-dale, Ga., at 8.45 a.m., on time, departed from Mansfield, the

last open office, 4.9 miles from Broughton, at 9.39 a.m., seven minutes late, according to the train sheet, stopped at Newborn, 2.4 miles from Mansfield, and upon reaching a point about  $\frac{1}{2}$  mile from Broughton was derailed while traveling at a speed estimated to have been between 30 and 35 miles an hour.

Engine 340 was derailed to the left on the north or outside of the curve, and came to rest on its left side 180 feet east of the initial point of derailment, headed westward; the tender was derailed to the right and the cistern was torn from the frame and came to rest about 40 feet east of the engine. The two cars in the train were derailed but remained upright on the roadbed. The employees killed were the engineman and fireman.

#### Summary of evidence

Conductor Cooper said his train approached the point of accident traveling at a speed of about 30 or 35 miles an hour, at which time he was riding in the rear coach, and the first warning he had of the accident was when he felt the brakes applied in emergency followed by the noise and jerking of the train as it came to a stop after being derailed. Conductor Cooper said that shortly afterwards he began to look for the cause of the accident and at a point a short distance from the rear of the train he noticed a broken angle bar, about 7 inches of which was missing, and while examining this broken angle bar he was handed a piece of angle bar which matched the part then in the track. Later, in company with three section foremen, he made a careful examination of this angle bar and rail joint and also the track in the immediate vicinity and arrived at the conclusion that the broken piece of angle bar had been placed on top of the outside rail of the curve and had caused the derailment of the train. The statements of Baggage-master Willis and Flagman Norton brought out no additional facts of importance.

Section Foreman Brown, who was in charge of the section of track on which the accident occurred, said he had retimbered and surfaced the track in the vicinity of the point of accident in August, 1924, and that the last work he had done in this vicinity was about a month previously, when he had cut the grass in the right-of-way. He went over this section of track on a motor car on the morning of October 13, but did not observe any unusual condition, particularly the broken angle bar involved in the accident. He said he had applied the angle bars at the joint at which the broken fragment was missing and had used only three bolts, explaining that as the

two rails were of slightly different section only three of the holes in the angle bar would register with the rail bolt holes and he compensated for the omission of the fourth bolt by putting in three spikes on each side of the angle bar. This method of applying angle bars was customary and he did not think that it would tend to decrease the factor of safety. He examined the joint after the accident and found it intact with the exception of the piece broken off from the end of the angle bar, he also found that the bolts were fastened tightly in place. He examined the track west of the derailed train and found no marks on the ties or roadbed that would indicate dragging equipment or anything which would have caused or contributed to the cause of the derailment. On the second rail east of the joint at which the broken angle bar was located he observed that the top of the rail was scored for a distance of about 8 feet from the receiving end of the rail, as if something had been pushed along on the running surface of the rail; beyond this point there were flange marks on top of the rail indicating where a wheel had mounted the rail and then had dropped off on the outside. The broken piece of angle bar plainly showed that it had been run over while on the rail, while the scored surface of the rail appeared to indicate the course of the angle bar as it slid along on top of the rail under the leading engine-truck wheel.

Section Foreman Henderson, of the adjoining section on the west, also examined the track and derailed equipment and corroborated the testimony of Section Foreman Brown as to track conditions, etc. He further stated that he believed the broken piece of angle bar had been recently removed from its position at the joint, as it had rained the day before and at the time of examining the broken angle bar he noted that the break appeared fresh and that neither piece of the angle bar showed any signs of rust, which would not have been the case had the break been very old.

Supervisor of Motive Power Dickert arrived at the scene of the accident at 4 p.m. and made a careful examination of the derailed engine, and while its badly damaged condition would not permit of exact or precise measurements, etc. he said he could state with reasonable certainty that there was nothing defective about the engine which would have caused the accident. Track Supervisor Anderson accompanied Mr. Dickert in his examination and they later went carefully over the track in the rear of the derailed

equipment but could find no evidence of dragging equipment. They examined the rail joint at which the piece of angle bar was missing, Mr. Anderson said the broken piece of angle bar bore every indication of having been placed on top of the rail in a position certain to result in the derailment of the train, the impression on one side of it fitted the top of the rail, while the impression on the other side fitted with the contour of the left front engine-truck wheel. Mr. Anderson also said he found a chisel mark which indicated that the section of broken angle bar had been forced out of its normal position in the track. From their examination both Supervisor of Motive Power Dickert and Track Supervisor Anderson were convinced that the broken piece of angle bar had been placed on the rail with malicious intent.

#### Conclusions

This accident was caused by a piece of a broken angle bar having been placed on the outside rail of a curve, apparently with malicious intent.

It was not determined when or how the angle bar was broken, but the evidence indicated that the broken section involved in this accident had been forced to one side until clear of the spikes and then was taken to a point about one rail-length east of the point where it broke and was placed on the running surface of the outside rail of the curve. Apparently it was placed on the rail in the only position in which it would have been certain to cause a derailment, and it seems probable that it was placed on the rail with malicious intent.

The employees involved were experienced men, at the time of the accident they had been on duty less than 2 hours, previous to which they had been off duty 10 hours or more.

Respectfully submitted,

W. P. BORLAND,

Director.