Report of the Chief Inspector of Safety Appliances covering investigation of accident on the Southern Railway, near Holton, Ga., Sept. 6, 1912.

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October 24, 1912.

To the Commission:

On September 6, 1912, there was a derailment of a passenger train on the Southern Railway, near Holton, Ga., resulting in the death of one employee and the injury of 6 employees and 20 passengers.

After investigation, I beg to submit the following report:

The derailed train, south-bound train No. 6, known as the "Cincinnati-Macon Special", consisted of engine No. 1300, one combination baggage and passenger car, one coach, and two Pullman sleeping cars, and was in charge of Conductor Sloan and Engineman Scribner.

This train left Atlanta, Ga., at 12:20 p.m., on time, and passed Dame's Ferry, Ga., a station about 5 miles north of the point where the accident occurred, at 2:33 p.m., four minutes late. The derailment occurred at 2:40 p.m., in a shallow cut on a 1% descending grade, on a 4-degree curve, at a point about 800 feet north of a bridge 83 feet in length. At the point where the derailment occurred there was a low spot under the rail on the inside of the curve. There had been no heavy rains at this point for several weeks and the roadbed, which is of mica schist, was thoroughly dry; it had become very finely pulverized and had "squeezed" out, letting the ballast settle and leaving the ends of the ties

swinging. Under the weight of the engine at speed, this rail settled an inch or more. The front tender truck was the first one to be derailed; afterwards the tender traveled along practically parallel with the rails, the wheels between the rails being almost in the center of the track, until it reached the bridge. Then the wheels outside of the rails struck the trestle guard rail and bunched the ties, pushing over two bents and causing the engine and tender to turn over and fall down the embankment. The combination baggage and passenger car plunged down into the creek, and the coach and the front truck of the first sleeper were derailed.

Examination of the tires and flanges of the engine and tender wheels showed that there was nothing about them which could have caused this derailment. The engine was of the 4-6-2 type and, together with the tender, weighed about 185 tons.

The equipment of this train was of steel and steel underframe construction; this undoubtedly accounts for the fact that the casualties among the passengers were comparatively few and slight.

It was estimated that the speed of the train at the time of the derailment was 45 or 50 miles per hour.

Where this accident occurred the Southern Railway is a single-track line. Eighty-five pound rails, 33 feet long, are used, with 18 or 20 oak and pine ties to the rail. A few tie plates are used. On curves the rails are double-spiked on the outside, and elsewhere they are single-spiked on both sides. Slag ballast is used, the amount varying

from practically none for several rail lengths to 10 or 15 inches in depth. There was a soft spot of about two rail lengths, beginning approximately 80 feet north of the point where the derailment occurred. Difficulty had been experienced in maintaining the track in proper surface and alignment at this point, and the ballast was about 15 inches deep.

The track supervisor stated that he had come north on the morning of the accident on an inspection trip, passing Holton at about 8:00 a.m., and he noted two places on this section that were out of surface, one of them being just north of the point where the derailment occurred. The section gang was working south of these points, and the supervisor was returning on No. 6, with notes calling attention to these two places to be thrown off to the section foremen. The supervisor stated that he did not regard the conditions as dangerous or calling for slow orders. He stated that he had been over this section two days before and noted nothing out of order, but that these two places and several others had been giving trouble and section foremen were directed to watch them.

The section foreman stated that there was a soft spot in the roadbed at the point where the derailment occurred, and after the accident he found the rail at this point about an inch and a quarter low, but the line and gauge were good and the ties were in good condition. The derailment occurred on Thursday afternoon, and he had not examined the track at this point since the preceding Saturday. He stated that the weather had been clear and that the track at that point had

not required sattention in that length of time when the weather was clear; ordinarily in fair weather he inspected the track on his section at least twice a week, and oftener in stormy weather. He had been in the employ of the Southern Railway as section foreman at this place for four months, and had had 10 years' previous experience. This section is six miles in length and the section foreman has a crew of four or five men.

A careful examination of the track in this vicinity was made after the accident, disclosing the following conditions:

In the half mile of track north of the point where the derailment occurred 304 spikes were missing. In the 24th rail 14 spikes were missing; 10 were missing in the 22nd rail, and 8 in the 11th, 14th and 15th rails. In this half mile of track 22 spikes were pulled by hand, while at the 8th rail joint all four spikes were pulled in this manner. In the 46th rail length 7 ties were not spiked on the inside, while 3 decayed ties were found under both the 6th and 47th rails.

In the half mile south of the derailment 245 spikes were missing, the 27th rail on the east side of the track having inside spikes missing in five consecutive ties. In this half mile of track 17 spikes were pulled by hand, while 70 decayed ties were found, 5 being under the 77th rail.

There were no speed restrictions or slow orders in effect covering this track.

This accident was caused by a low spot in the track on the inside of the curve and by the high speed at which the train was rounding the curve. The investigation discloses the fact that the track on this curve and in this vicinity was not properly maintained to provide for the safe operation of trains at high speed; until the track is put in good condition, a reduction in speed at this point should be required.