IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE ILLINOIS CENTRAL RAILROAD AT WILKE, IOWA, ON JANUARY 30, 1921.

March 22, 1921.

On January 30, 1921, there was a rear-end collision between a freight train and a passenger train on the Illinois Central Railroad at Wilke, Iowa, which resulted in the death of 1 employee and the injury of 3 passengers and 2 employees. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

Location

The Waterloo District, on which this accident occurred extends between Waterloo and Fort Dodge, Iowa, a distance of 99.1 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. Approaching Wilke from the east the track is tangent for approximately 4 miles, the grade for a distance of 2,300 feet varies from 0.372 to 0.5 per cent ascending. The weather was misty.

Description.

Westbound freight train extra 1881, consisting of 42 cars and a caboose, hauled by engine 1881, was in charge of Conductor Barlett and Engineman Harnett. It left Waterloo at 8 a.m., passed Alden, the last open telegraph office, 4.8 miles east of Wilke, at 10.30 a.m., headed into the passing track at Wilke and was clear of the main line at about 10 41 a.m. The crew was unable to close the switch, and at about 10.52 a.m., while standing on the passing track, the rear end of this train was struck by train No. 15.

Westbound passenger train No 15 consisted of 1 express car, 3 mail cars, 1 refrigerator car, 1 baggage car, 1 smoking car, 1 coach and 1 Pullman sleeping car, in the order named, hauled by engine 1175, and was in charge of Conductor McGonagle and Engineman Livingston. It passed Alden at 10.45 a.m., 4 minutes late, headed into the east passing-track switch at Wilken and collided with the rear end of extra 1881 while travelling at a speed estimated at from 20 to 30 miles an hour.

The caboose and six cars on the rear of extra 1881 were destroyed. Engine 1175, and the first, third and fourth cars in its train, were derailed, but none of the equipment of train No. 15 was seriously damaged. The employee killed was the fireman of train No. 15.

Summary of evidence.

After extra 1881 had gotten into clear and stopped with the caboose about 4 car-lengths from the switch, Conductor Barrett saw that Flagman Atkinson was having trouble with the switch and ran back with a flag, which he gave to the flagman and then sent him back to stop train No. 15, while he himself tried to close the switch. Flagman Atkinson went back, and he said that the engineman of train No. 15 acknowledged his stop signals when about ½ mile from the point of accident but did not apply the brakes until after he had passed him a distance of about 600 feet. There is a bridge about 1,700 feet from the switch, and Flagman Atkinson thought he had reached a point within 300 feet of this bridge

when the train passed him, running at a speed of about 40 or 50 miles an hour. These statements of Flagman Atkinson were substantially corroborated by those of Conductor Barrett, who added that he also gave hand stop signals when train No. 15 was about 15 or 20 car-lengths from the switch

Engineman Livingston, of train No. 15, said he saw the flagman not more than 10 carlengths distant, the flagman being about half way between the bridge and the switch. The speed of his train at this time was about 60 miles an hour and he said that he at once shut off steam, made a 20 or 25-pound brake-pipe reduction, and opened the sanders. As the train passed the flagman he saw him giving violent stop signals, but he said he was under the impression that the trouble was at the west end of the passing track and that an emergency application of the brakes was not necessary He said he could not determine the position of the switch until it was only 300 feet distant· at about this time he saw the conductor giving stop signals, realized that the switch was open, and then placed the brake valve in the emergency position. Engineman Livingston did not think he could have stopped his train even if he had made an emergency application of the air brakes as soon as he saw the brakeman. The front cab window on the engineman s side was a double window, and was not equipped with a clear-vision window Conductor McGonagle, of train No. 15, said that his first knowledge of anything wrong was when the air brakes were applied in emergency, at which time the train was in the vicinity of the

switch, travelling at a speed of 35 or 40 miles an hour; he thought the collision occurred a few seconds afterward Conductor McGonagle had not noticed any service application of the brakes or reduction in the speed prior to the emergency application.

While the statements of Engineman Livingston indicated that the view was very materially obscured on account of the weather conditions, the engineman of extra 1881 said he could see the indication of the switch target, a distance of about 1,000 feet, while both the engineman and head brakeman, from their positions near the head end of their 42-car train, were able to see the flagman trying to close the switch and then go back to flag train No 15. Conductor Barrett and Flagman Atkinson said the track could be seen a distance of 1½ miles, while the conductor of train No. 15 said he thought the weather conditions would slightly interfere with an engineman's view of a flagman.

The crew of train first No. 62 had used the switch a short time before the arrival of extra 1881 and experienced no difficulty in handling it; this was also the case when Head Brakeman Cameron, of extra 1881, opened the switch at the time his train headed in on the passing track. Flagman Atkinson did not make any thorough examination of the switch when he found that he could not close it but Conductor Barrett said he found he could only move the switch points about an inch and on examination found that a bridle rod connecting the switch points was binding against one of the head block ties.

When Roadmaster Rogers reached the scene of the accident he saw that the cridle rod had been binding on the west head block, the binding taking place on the south side of the north switch point and on the north side of the south switch point, also on the south side of the south rail where the end of the rod had hit the head block. The track walker had been over this portion of the track on the morning of the accident and at that time had noticed nothing wrong with the switch.

Conclusions.

This accident was caused by the failure of Engineman Livingston, of train No. 15, to be governed by the stop signals of the flagman and the conductor of extra 1881 and the indication of the switch target of the east passing track switch.

The evidence indicates that Flagman Atkinson at a minimum estimate was back nearly 1,000 feet from the switch, and it also appears probable that his stop signals could have been seen at least twice that distance. Under these circumstances, had Engineman Livingston been maintaining a proper look-out he should have been able to see the stop signals of the flagman in ample time to bring his train to a stop before entering the passing-track switch. Both his own statement that he assumed the flagman was flagging for some condition at the west switch, and the conductor's statement that the brakes were not applied until immediately before the accident occurred, as well as the flagman's statement that the brakes were not applied when train No. 15

passed him, indicate that Engineman Livingston did not promptly take proper action to stop his train after being flagged.

The investigation indicated that the difficulty experienced in closing the switch was due to the creeping of the rails, but it was not determined exactly when or under what circumstances this creeping occurred.

Engineman Livingston was employed as a fireman in 1889 and was promoted to engineman in 1897, his record was good.

At the time of the accident the crew of extra - 1881 had been on duty nearly 10 hours, after nearly 11 hours off duty; the crew of train No. 15 had been on duty from 2½ to 5 hours, after periods off duty varying from about 64 hours to about 32 hours.