IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE NEW YORK CENTRAL RAILFOAD NEAR CANASTOTA, M. Y., ON SEPTEMBER 18, 1920.

November 9. 1920.

On September 18, 1920, there was a rear-end collision between two freight trains on the New York Central Railroad near Canastota, M. Y., which resulted in the death of 2 employees and the injury of 2 employees. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

The Mehawk Division, on which this accident occurred, extends between Syracuse, N. Y, and Albany, N. Y., a distance of 147.39 miles. In the vicinity of the noint of accident this is a four-track like over thich trains are operated by time-table, train orders, and an automatic block-signal system. The tracks are numbered from south to north as follows 2, 1, 3, and 4; the secreent occurred on track No. 4.

The automatic signals are of the 3-position, upper-quadrant, normal-danger type, spaced to give an approach indication not less than braking distance in the rear of a signal displaying a stop indication. The accident occurred at a point about 460 feet east of automatic signal 27094, which is located about 1 mile west of Canastota, signal 27174 is located 4,515 feet west of signal 27094. Approaching the point of accident from the west the track is tangent a distance of about 6,000 feet; the grade for about 1 mile is practically level. The weather at the time of the accident was clear.

Eastbound freight train extra 2505, consisting of engine 2505, 71 chrs, a cabbose, and helper engine 3925, in the order named, was in charge of Conductor Schue and Engineman Scott. According to the train shiet, this train left Minoa Yard, 8 miles east of Syracuse, at 1.00 a.m., passed Sullivan at 134 a.m., and stopped at Canastota for the purpose of setting out a cir with a hot-box; while this car was being set out, the rear end of the train was struck by extra 3823, at about 2.32 a.m.

Eastbound freight train extra 3823, consisting of engine 3823, 77 errs, a cabose, and helper engine 3155, in the order named, was in charge of Conductor Hanley and Engineman Rude. It left Minoa Yard at 1.50 c.m., passed Sullivan at 2.25 a.m., passed signal 27174 in the caution position, passed the flagman of extra 2505, passed signal 27094 in the stop position, and while travelling at a speed estimated to have been about 25 or 30 miles an hour collided with the rear end of extra 2505.

Engine 3823 and the first eight errs in its train were derailed and badly dringed, while one car near the rear end of this train was derilled. In extra 2505, helper engine 3925, the caboase, and the first two cars ahead of it were derilled and badly damaged. The employees killed were the fireman of earing 3823 and the fireman of helper engine 3925.

The investigation disclosed that Conductor Schue, of extra 2505, had seen a pluzing hot box and before applying the brakes by means of the conductor's valve for the purpose of stopping the train and setting out the car, had directed that the helper engine be cut off as was customory before stopping on account of the air brakes not being coupled through to the helper engine. After the train had been brought to a stop the conductor want forward and assisted in setting out the car on which the het box was located. In the meintime the helper engine stopped at signal 27094, which was in the stop position, and then closed up on extra 2505 and was coupled to it by Flagain Case of the helper engine, after which the flarman went proket to protect the rear of the train.

According to the flagman's statement, he had been back about half an hour when he saw extra 3823 approaching, at which time he was about 45 cr. -lengths from the rear of his train and had a view of the track to the west for a distance of about 1 mile. Flagman Case said he ran toward the approaching train giving stop signals, but received no acknowledgment of his signals. He then put down one torpedo and sold he threw his lautern at the engine as it passed him, about 55 or 60 cor-lengths from the rear of his train. At this time he did not see any one on the engine, but just before the engine reached signal 27094, which he said was displaying a stop indication, he saw a reflection from the fire box indicating that the fireman was putting in a fire, and he also noticed that the markers on the pear of his train were burning brightly. Flagman Case heard the torpedo explode, but said that angine 3823 worked steam up to the time of the accident. He did not have any fusee with him, saying he had been unable to obtain any at the engine house at Minoa.

Angineman Smith, of helper engine 3925, had gone into the caboose a few minutes before the accident occurred, but stated that the last time he saw Flagman Case the latter was back a distance of at 1 ast 60 car-lengths.

Rear Brokeman Deckhart, of extra 2505, was on the ground near the caboose when he saw extra 3823 approaching, apparently about 50 car-lengths distant, and at the same time he saw Flagman Case apparently about 30 car-lengths west of signal 27094, which is about 12 car-lengths west of the point of secident. Br keman Deckhart soon realized that extra 3823 was not going to stop, and ran toward it a distance of about

8 car-lengths, giving stop signals. Brakeman Deckhart estimated the speed of extra 3823 at about 25 miles an hour, and said that the ensine was working steam up to the time of the accident. Conductor Schue, of extra 2505, did not know anything about the accident until after it had occurred.

Engineman Rude, of extra 3823, said he saw signal 27174 displaying a caution indication and that he shut off steam at this signal, at which time the speed of his train was from 15 to 18 miles an hour. He did not see signal 27094 in the stop position until close to it, at which time he also saw the rear end of extra 2505, and at once made an emergency application of the cir brokes. He had not seen Flagman Case and did not hear the explosion of any torpedoes.

Brokeman Zergman, of extra 3823 stated that the engineman did not shut off steam at the ceution signal, and that he heard the explosion of a torpedo, but at about that time a cinder act in his eje and on account of using a hand-kerchief in trying to get out the cinder he did not see signal 27094 at any time, and aid not see the rear and of extra 2505 until it was only a few feet distant. He estimated the speed at about 15 miles an nour. Brakeman Zergman further stated that the inrottle was about half open and that the engineman did not apply the air brakes; he was of the opinion that the engineman was asleep.

The statements of Conductor Hanley, Rear Brakeman Quilty and Middle Brakeman Chase, of extra 3823, all of whom were in the caboose, indicated that the speed of their train was about 20 miles an nour, and that the emergency application of the air brakes came at about the time of the collision; they had not heard the explosion of any torpedoes. On getting out of the caboose immediately after their train stopped, Conductor Hanley and Brakeman Quilty met Flagman Case about 15 cor-lengths east of their caboose. Incomuch as there were 77 cors in their train, Flagman Case at that time was about 60 cor-lengths from the rear of his train. Middle Brakeman Chase, however, said that he met Flagman Case 25 or 30 car-lengths from the esboose, which would be approximately 50 cor-lengths from the rear end of extra 2505.

This accident was caused by the failure of Engineman Rude, of extra 3823, to be governed by automatic block-signal indications, as well as the stop signals of Flagman Case.

Notwithstanding Engineers Rude's statement that he shut off steam at the crution signal, 27174, the weight of evidence indicates that steam was used until about the time the accident occurred. Coupled with the engineman's statement that he did not see the stop indication of signal 27094 until he was very close to it, although he had a clear view for at

least 1 mile, and his failure to see Flagman Cose's signals and to hear the explosion of the torpedo, it would appear that Engineenan Rude was asleep, as stated by Brakeman Zergman.

Enginemen Rude entered the scrvice of this railroad as firemen on January 23, 1911, and was promoted to enginemen on August 21, 1915; his record was good. At the time of the accident Enginemen Rude had been on duty a little more than 2 hours, after an off-duty period of over 15 hours; he stated that he had had ample rest during his off-duty period.