May 17, 1912.

IN RE INVESTIGATION OF ACCIDENT ON THE ILLINOIS CENTRAL RAILROAD, April 21, 1912.

On April 21 there was a rear-end collision between two freight trains on the Illinois Central Railroad at Iowa Falls, Is. This accident caused the death of three live stock caretakers and the injury of one fireman.

This accident was reported by telegraph on the day following its occurrence. After investigation the Chief Inspector of Safety Appliances reports as follows:

East-bound freight train second No. 62, consisted of 46 cars of live stock and a caboose, drawn by engine No. 901. The train was in charge of Conductor Barrett and Engineman Boehsler. Train second No. 62 left Fort Dodge, Ia., at 12:10 P. M., passed Alden, the first telegraph station west of Iowa Falls at 2:39 P. M., and at 2:53 P. M. stopped at Iowa Falls for coal and water. When the stop was made the caboose was about one mile inside of the yard limit board. Soon after 1t had come to a stop it was struck by train No. 62.

East-bound freight train No. 52 consisted of 26 cars of stock, 19 cars of meat and merchandise, and a caboose, all equipped with air brakes. This train was in charge of Conductor Bentz, with Engineman Alger in charge of the first engine, No. 14, and Engineman Flickenger in charge of the second engine, No. 593. Train No. 58 left Ford Dodge at 12:50 P. M., and passed Alden at 2:58 P. M., colliding with the rear

end of second No. 62 eight minutes afterwards. The distance from Alden to the point of the accident is 6-1/2 miles. It therefore appears that this train traveled this distance at an average speed of 49 miles per hour. It was probably going at a speed of from 18 to 20 miles per hour at the time of the collision.

Both of the engines of train No. 52 were derailed and considerably damaged, while one caboose and twelve care were more or less badly damaged. There were II live stock caretakers riding in the caboose of train second No. 62, 8 of whom jumped in time to avoid injury.

This collision cocurred near the middle of a four degree curve leaning toward the left. Coming into Iowa Falls there is a descending grade for east-bound trains of one-half percent, whill within a few hundred feet of the point of the accident, where there is a slight ascending grade. On account of several houses located on the inside of the curve the view of approaching east-bound engine crews is restricted to a distance of about 1,000 feet. No block signals are in use, trains being operated by means of train orders, while all trains are required to be spaced 10 minutes apart at open telegraph offices.

When train No. 62 reached lows Falls no first class trains were due, and, being inside the yard limits, the conductor sent to the telegraph office for orders while the flagman became engaged in cooling hot journals and repairing an air hose, thus affording no flagging protection to the train.

This was in accordance with Rule No. 93 of the Illinois Central book of rules, which reads as follows:

protecting against first class trains.

Second and third class trains, and extras, must move within yard limits prepared to stop, unless the main track is seen or known to be clear.

Conductor Bentz, of train No. 82, stated that all of the cars on his train were equipped with air brakes, and that they were examined at Fort Dodge and found to be all right. Two stops were made between Fort Dodge and Iowa Falls, and the brakes worked properly in each instance. He estimated the speed of the train to have been about 35 miles per hour when the first application of the brakes was made, west of the yard limit board. This application reduced the speed of the train to about 20 miles per hour, which speed was maintained until the emergency application of the brakes was made. He estimated that his train ran about 10 or 12 car lengths after the emergency application was made.

Head Brakeman Bagan, of train No. 50, stated that he was riding on the fireman's side of the leading engine. At no time did he see any smoke indicating that there was a train ahead. He saw the caboose of second No. 62 when about 18 or 20 car lengths distant and called the engineman's attention to it, and the engineman said, "All right." He estimated the speed at this time to be about 20 miles per hour. The train then seemed to slow up somewhat. At the time he supposed that it would stop without colliding with the train ahead. He

stated that the emergency brakes were applied when about ten car lengths distant, just after which he jumped.

Engineman Flickenger stated that Engineman Alger was in charge of the air brakes. When making the stops between Fort Dodge and Iowa Falls, the brakes worked all right, doing into Iowa Falls the brakes were applied at about the yard limit board and in his estimation reduced the speed of the train to about 15 miles per hour. He did not notice the second application of the brakes. He estimated the speed to have been about 35 miles per hour when the yard limit board was reached. In his opinion the accident was caused either by misjudgment of speed or braking power. He did not think that the speed going into Iowa Falls was anything unusual and supposed that the engineman on the leading engine had the train under control.

Fireman Burns, of engine No. 14, stated that he saw the caboose of second No. 62 when coming around the curve on which that train was standing. He thought the train was about half a mile distant. Fireman Burns stated that he and the head brakeman both called the engineman's attention to it, the brakeman doing so first. The engineman at once applied the emergency brakes. Then he first saw the train shead Fireman Burns did not think there would be a collision, but after the emergency brakes were applied he saw that it was inevitable and jumped. He stated that between Fort Dodge and Iowa Falls he had seen the smoke of train second No. 62, but did not know how close his train was to it.

Enginemen Alger stated that the train was inspected before leaving Fort Dodge and the air brakes were found to be in satisfactory condition. He also stated that the two stops made between Fort Dodge and Iowa Falls were made without trouble. He reduced the speed to about 15 miles per hour going into lowa Falls, and just after passing the slight curve beyond the yard limit board the speed began to increase. He thought at the time that either all of the air was not applied or that the brakes were not working. At this time someone said that a train was shead and he at once applied the emergency brakes. He stated that the speed of his train was about 35 miles per hour when he shut off steam and made the initial application of the air brakes, about three-quarters of a mile west of the point of the accident. The further statement was made that the air pump on his engine worked very rapidly, indicating that there was a leak somewhere in the train line. Engineean Alger further claimed that if the brakes had worked properly he would have been able to stop the train with an emergency application, after his attention was called to the train shead, in time to have avoided the accident.

The records of the company show that all the employees involved in this accident were experienced men with good records. None of them had been on duty in violation of the provisions of the Hours of Service law and all of them had had the required amount of rest before reporting for duty on this day.

This accident was caused by the failure of Enginesis Alger, in charge of the leading engine of train No. 82, to properly control the speed of his train within yard limits.

In this accident the enginemen of the leading engine had not been over this part of the division, between Fort Dodge and lows Falls, for several months, while the enginemen of the second engine ran regularly over this division. The engineman on the leading engine was in charge of the air brakes. These brakes were inspected before leaving Fort Dodge and were found to se all right, and no trouble was experienced with them when making two stops between Fort Dodge and Iowa Falls. When the brakes were applied coming down the hill into lows Falls, it was evidently expected that the application made was sufficient to bring the train under control. It is evident, however, that Engineman Alger did not correctly estimate the speed of his train, and the heavy train and descending grade undoubtedly aggravated the effects of this mistake. The view of the crew of the second engine was more or less restricted by the smoke and steam from the first engine. thile the train orew riding in the caboose were about 8,000 feet behind the engines and could not see the train ahead. even after the collision. This makes it appear to be conclusive that the matter of the observance of rule No. 93 of the book of rules rested largely with Engineman Alger. This train was several hours late at the time. Undoubtedly the desire to get this stock train to the terminal (as doon as possible partly accounted for the speed at which it was

running when coming into lowe Falis. Notwithstanding this
fact there remained the necessity of complying with the
requirements of rule No. 93. Both enginesse, as well as the
conductor, knew when they passed the yard limit board and
also that there was a four-degree curve just shead of their
train; they knew that the view at this point is obstructed
to a considerable extent by houses located on the inside of
this curve. This being the case, when Enginessen Alger failed
properly to reduce the speed of the train to such an extent
that it was under control within these yard limits, either
Enginessen Flickenger or Conductor Bentz (who could have used
the conductor's valve in the caboose) should have applied
the air brakes and thus brought the train under control.