In Re Investigation of an Accident which occurred on the New York, New Haven & Hartford Railroad at Beacon Falls, Conn., on December 1, 1916.

December 19, 1916.

On December 1, 1916, there was a rear-end collision between a freight train and a passenger train on the New York, New Haven & Hartford Railroad at Beacon Falls, Conn., which resulted in the death of 2 employees and the injury to 5 passengers, 2 employees and 2 trespassers.

Upon that part of the Highland Division upon which this accident occurred, the line extends north and south and is double track. The movement of trains is controlled by timetable, train orders and a manual block system, train-order signals being used as block signals.

The trains involved in this accident were northbound freight extra 368, which had taken the siding at Beacon Falls, and northbound passenger train No. 266, which collided with the rear of the freight train, the south switch of the passing siding having been left open after the freight train had pulled in on the siding.

Northbound freight extra 368, en route from Harlem River, N. Y., to Waterbury, Conn., at the time of the accident, consisted of engine 368, 19 cars and a caboose, and was in charge of Engineman Ardelt and Conductor Johnson. The train was called to leave Harlem River at 4.00 a.m. At Bridgeport, Conn., Conductor Johnson, while waiting in a signal cabin for his engine to come from the yard, fell asleep and the train departed without him at 12 0'clock noon. At Derby, Conn., a message was received for the train to take the siding and for the crew to go off duty and wait for the conductor. After the arrival of the conductor the train proceeded to Seymour, Conn., 5.49 miles north, and there received a message instructing it to take siding at Beacon Falls, 3.48 miles north and permit passenger train No. 266 to pass. Leaving Seymour all the members of the crew were riding on the engine except the flagman, who was on the caboose. Upon arrival at Beacon Falls the conductor opened the switch and the train was pulled on to the passing siding which parallels the main track on the east. After the train was nearly clear of the main track, cars were found obstructing the passing siding, a stop was made and the conductor went back toward the rear end of the train and informed the flagman that the train was about to back up. The flagman then proceeded back in accordance with rule No. 99. After an unsuccessful attempt to back the train,

arrangements were made whereby the train was moved ahead sufficiently to clear the main track, the caboose coming to a stop 345 feet north of the main track switch. Conductor Johnson then instructed the head trainman to go to the rear of the train and see that it was clear of the main track and see if the flagman had returned. After sending the brakeman back, the conductor went to the telegraph office and reported to the operator that his train was clear of the block at 6.15 p.m. After some conversation with the operator the conductor returned to the engine and remained there until the rear of the train was struck by train No. 266, about 6.46 p.m.

Northbound passenger train No. 266, en route from New York City to Winsted, Conn., consisted of locomotive 1006, mail car, smoking car, two coaches, and Pullman parlor cars Althea and Whitteden, all of which were of all-steel construction with the exception of the two parlor cars, which were of steel underframe construction. The train was in charge of Engineman Lake and Conductor Colgan, and left Seymour at 6.41 p.m., on time. Approaching Beacon Falls the train was running at a speed of about 30 miles per hour, when upon rounding the curve it entered the open switch and collided with the rear of extra 368. The caboose and 3 rear cars of extra 368 were totally destroyed. The locomotive of train No. 266 was considerably damaged. The weather at the time of the accident was clear.

Beginning at a point about.7 of a mile south of Beacon Falls station, and proceeding northward, the line is tangent for a distance of 600 feet; this is followed by a 3-degree 30' curve to the west 1,950 feet in length, which in turn is followed by a tangent 700 feet in length. The south switch of the passing siding is located on the curve 650 feet from its north end. The track at this point is laid in a cut approximately 65 feet in depth, with its sides sloping off at an angle of 45 degrees. In this vicinity there is a slight grade ascending northward.

Engineman Ardelt, of extra 368, stated that he was not aware that the conductor had been left at Bridgeport until his train arrived at Derby. He stated that upon arrival at Beacon Falls his train took siding, and upon finding the track occupied by cars he made several unsuccessful attempts to back the train; he then pulled into clear and sounded the whistle signal to recall the flagman; this he did on his own initiative. He looked back and saw the rear of the train was into clear; he did not however notice the position of the switch. He stated that as soon as the train was into clear he heard the conductor tell the head brakeman to go back and make sure the rear of the train was into clear and see that the flagman returned, he did not, however,

hear him say anything about looking to see if the switch was closed. Engineman Ardelt further stated that approaching Beacon Falls the light on the switch at the south end of the passing siding can be seen across the curve a distance of about 30 car lengths. After passing that point it can not again be seen until within three to five car lengths of the switch. As his train pulled into Beacon Falls the switch lights were burning brightly.

Conductor Johnson, of extra 368, stated that after his train arrived at Bridgeport he stepped into the signal cabin, and while waiting for the engine to come from the yard he dropped off to sleep. When he awoke he learned that his train had departed a few minutes before, at 12 o'clock noon. He remained at Bridgeport until 2.40 p.m., when he boarded a northbound passenger train and overtook extra 368 at Derby about 3.45 p.m. After leaving Derby the train-order signal at Seymour was in the stop position. He went to the telegraph office, received a message for the train to take the siding at Beacon Falls and let train No. 266 pass. Upon arrival at Beacon Falls, about 6.00 p.m., he opened the switch, and after the train started to pull in on the siding it was found to be obstructed by cars. He then decided to back out and pull in on another track that was clear, and made arrangements accordingly with the flagman, but after an unsuccessful attempt was made to back the train he concluded to pull in on the siding, pushing the cars ahead of the engine sufficiently to permit his train to clear the main track; this consumed some 10 or 12 minutes. As soon as the train had stopped clear of the main track the engineman on his own initiative called in the flagman. He stated that he then sent the head brakeman back to see that the switch was closed and that the flagman returned to the train; he next went to the station and reported to the operator that his train was clear of the block. After reporting to the operator he walked over to the engine of his train and was sitting on the fireman's seat at the time the collision occurred. Conductor Johnson stated that he had passed a satisfactory examination on the general rules, also on the Highland Division, that he had been running over this territory for a year or more and was thoroughly familiar with the road. He stated that he did not look at the switch after pulling in, as he had absolute confidence in the members of his crew and thought they would see that it was properly closed. He further stated that he had ample time to go to the rear of his train before the collision occurred had he thought it necessary to do so.

Flagman Hershenroder, of extra 368, stated that he had no knowledge that the conductor had been left at Bridgeport until the train arrived at Derby. He said that when the train arrived at Beacon Falls he did not know that it was to take the siding,

but thought it had stopped for orders. He started back immediately to flag and shortly afterward the conductor came back part way and shouted to him that the train was going to back up. He then continued walking back, and had reached a point about half a mile south of the switch when he was recalled. Before returning he placed two torpedoes and a fusee on the engineman's side. As he returned he was under the impression that his train was occupying the main track and was going to run to Waterbury ahead of train No. 266, and for that reason he did not notice particularly the position of the switch. Upon reaching the caboose the head brakeman told him the train was into clear and was to remain there until passed By No. 266. He then got on the caboose and turned the marker lamps to display yellow. He then looked back to see if the main track switch was closed, and seeing three or more green lights assumed the brakeman had closed it. A few minutes afterward the brakeman returned to the head end of the train; when he heard No. 266 approaching he stepped out on the rear platform of the caboose, heard the torpedoes explode and saw the train approach, but it was not until the train took the switch making a sharp turn to the right, that he realized there was anything wrong. Flagman Herchenroder further stated he had qualified on the rules as a flagman; that it was not customary to examine a flagman as to the physical characteristics of the road, and that he was not familiar with this line, this being his third trip. He said the frequently messages concerning the movement of the train were handled on the engine about which the flagman on the caboose was not informed.

Brakeman Thompson, of extra 368, stated that when the train reached Seymour the engineman told him to go to the telegraph office and see if any orders were there. On his way he met Conductor Johnson, who gave him a copy of a message to deliver to the engineman instructing their train to take the siding at Beacon Falls to let train No. 266 pass. Both he and Conductor Johnson rode on the engine from Seymour to Beacon Falls. After pulling in on the siding at Beacon Falls the conductor told him he had better go to the rear of the train and see that it was clear of the main track, also see that the flagman had returned, but he stated that he did not mention the position of the switch. When he reached the rear of the train he saw the flagman returning; he also saw several green lights, but did not notice any red light; the main track switch was but about 3 car lengths from the caboose, he did not however notice its position. Brakeman Thompson stated further that he had been examined on the rules as to the duties of a brakeman, the signal and flagging rule, and that he had qualified to act as flagman in emergency. He said that he carried an

Ingersoll watch, had no Highland Division timetable, and this was his first trip over this division.

The engineman and fireman of train No. 266 were killed in the accident.

Conductor Colgan, of train No. 266, stated that as his train approached Beacon Falls he was riding in the third car from the engine, and at that time the train was running at a speed of about 30 miles per hour. The first intimation of the impending accident he received was the sudden application of the brakes, followed very closely by the shock of the collision. He stated that prior to the accident the air brakes had been working properly.

Operator Osterhoudt, on duty at Beacon Falls, stated that extra 368 arrived at Beacon Falls at 6.00 p.m.; about fifteen minutes later Conductor Johnson came to the telegraph office and reported his train clear, whereupon he communicated with the operator at Seymour and reported the block clear.

The employee who was in charge of the switch lights at Beacon Falls stated that about ten minutes after the accident occurred he examined the main track switch and found the lamp burning brightly and displaying red for the main track.

An examination of the switch subsequent to the accident disclosed that the switch was so located on the curve that a person standing on the rear of extra 368 might, with the switch set for the diverging route, get to some extent a clear indication. This probably accounts for the failure of the brakeman and flagman to note the stop indication displayed by the switch from their position on the caboose. Approaching the switch from the south the switch light can be seen from the left side of a locomotive a distance of about 900 feet, and remains in view until the engine is within 150 feet of the switch.

This accident was caused by the failure of Flagman Herchenroder, of extra 368, to restore the passing siding switch to its normal position after his train had taken siding.

General Rule 1101, relating to the duties of flagmen, is as follows:

> "It is their special duty to protect the rear of their trains in accordance with the rules, and they must allow nothing to interfere with the prompt and efficient discharge of this duty."

Had Flagman Herchenroder been alive to the responsibility resting upon him he would have noted that the switch was not in the proper position when he passed it on his way to the caboose. After his arrival at the caboose, when he found the train in on the siding, it was his duty to know that the switch had been restored to its normal position. The fact that he knew that the conductor was at the head end of the train, and that he saw the only remaining member of the train crew, besides himself, walking back from the forward end of the train to the caboose, should have been sufficient of itself to raise a doubt in his mind as to who had closed the switch.

While this accident was caused primarily by the failure of Flagman Herchenroder to close the switch, the burden of the responsibility rests upon Conductor Johnson. General Rule 104 reads in part:

> "Switches must be left in proper position after having been used. Conductors are responsible for the position of the switches used by them and their trainmen, except where switchtenders are stationed."

This rule imposed a positive duty upon Conductor Johnson to know that the switch was restored to its normal position after his train was clear of the main track.

The evidence in this case discloses that at Bridgeport, Conductor Johnson, instead of devoting his attention to secure the efficient handling of his train, went into a signal cabin and went to sleep, resulting in his being left by his train. Upon arrival at Seymour he received a message, in effect an order, in which his train was involved, which he made no effort to transmit to his flagman. Upon arrival at Beacon Falls, he permitted the engineman to recall the flagman, and reported the block clear to the operator, without knowing positively that his train was clear of the main track. He returned to the locomotive and remained twenty minutes or more without instructing any one to close the switch and without taking any steps to know definitely that it was closed. These facts warrant the conclusion that Conductor Johnson was grossly negligent in performing his duty as conductor.

The evidence shows that two torpedoes were placed on the rail by the flagman of extra 368 at least half a mile from the point of accident, and that at the time of the accident the switch lamp on the passing siding switch was burning and displaying a stop indication which could be seen from an approaching train a distance of about 900 feet.

General rules 15 and 1220 are as follows:

> 15. The explosion of two torpedoes, not more than two hundred feet apart, is a signal to reduce speed and look out for a stop signal or track obstruction.
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> 1220. At night enginemen must keep in mind the location of main track switches. If a light can not be seen on a switch where a light is usually displayed, they must reduce speed sufficiently to stop before reaching the switch, unless the track is seen to be clear.

Under these rules Engineman Lake, of train No. 266, should have reduced speed when the caution signal was given by the explosion of the torpedoes, and had he done this, and both he and his fireman maintained a diligent lookout, in all probability they would have discovered the stop indication displayed by the open switch and stopped the train in time to avert the accident.

While Engineman Ardelt recalled the flagman without being expressly authorized to do so by Conductor Johnson, Conductor Johnson was practically present, knew that the flagman was recalled, and raised no objection at the time or afterward, from which it must be presumed that Conductor Johnson was fully cognizant of the action of Engineman Ardelt.

The evidence shows that on the section of track where this accident occurred there are 18 passenger trains and a considerable number of freight trains over the line each day, and the trains are spaced only by a manual telegraph block system, which affords no protection against accidents of this character.

Conductor Johnson is 32 years of age; entered the service as a brakeman in May, 1911, promoted to flagman March, 1912, and promoted to freight conductor in June, 1913, and at the time of the accident had been on duty 14 hours 45 minutes. Flagman Herchenroder is 38 years of age; entered the service as brakeman in April, 1901, promoted to flagman in August, 1902, promoted to conductor in December, 1904, gave up rating as conductor and resumed position as flagman in June, 1906, and resigned in December, 1912. He was re-employed as brakeman in September, 1913, and promoted to flagman in May, 1916. At the time of the accident he had been on duty 14 hours 45 minutes. Engineman Lake was 44 years of age; entered the service as fireman in December, 1881, promoted to engineman in April, 1885. Fireman Black entered the service as fireman in June, 1910.