

## LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade, (Railway Department,)  
Whitehall, London, S.W.,

12th March 1891.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 28th ultimo, the result of my enquiry into the circumstances connected with the collision which occurred on the 24th ultimo at Cheetham Hill junction, near Victoria station, Manchester, on the Lancashire and Yorkshire Railway.

In this case, during a dense fog, the 8.40 p.m. passenger train from Victoria station, Manchester for Normanton, ran into the rear-most of two engines which were standing at Cheetham Hill junction down home-signals.

Complaints of injury have been received from 25 passengers, but none of the injuries are believed to be of a serious character. The drivers of both the engines which were run into and the fireman of the foremost one were injured.

The passenger train consisted of an engine and tender running engine in front, and five vehicles, fitted throughout with the automatic vacuum-brake, and in it all the vehicles were slightly damaged and the leading-wheels of the first vehicle were knocked off the rails.

The foremost of the two engines run into was a tender-engine running engine in front, and the rear-most was a tank-engine running coal bunk in front. The tender-engine was not damaged, but the tank-engine had its front framing bent, its buffers broken, and the side tanks shifted on the framing.

The collision occurred at about 8.45 p.m.

*Description.*

There are four lines of rails (two fast and two slow) between Victoria station and Cheetham Hill junction, where the lines to Newton Heath and Ratcliff separate, the distance being about 66 chains. The down lines rise on sharp gradients 1 in 57 and 1 in 65 for the first 18 chains, after which the gradient changes into one of 1 in 150 (still rising), which continues to the junction. About half-way between Victoria east junction cabin at the entrance of the station and Cheetham Hill junction cabin there is one intermediate cabin called Footbridge, absolute block system being worked between these cabins. The only signals to which it is necessary to refer are the down advance fast line signal of Victoria east junction, 180 yards from the cabin, below which is the down distant-signal of Footbridge cabin; the down home-signal of Footbridge cabin 340 yards from the distant-signal and 130 yards on the Victoria side of the cabin, below which is the Cheetham Hill junction distant-signal; the Footbridge down advance-signal (not in use during fog), 285 yards on the Cheetham Hill junction side of the cabin, and the Cheetham Hill junction down home-signals 370 yards from this advance-signal, and 100 yards on the Victoria side of the cabin. With the exception of the Footbridge down advance-signal, which is at the side of the up slow line, all these signals are close to the down fast line, and can be well seen in clear weather. On the present occasion the fog was at places so dense that, though the signal-post could just be seen from the footplate of an engine on the down fast line, the lights in the signal-lamps could not be distinguished. No fog signalmen were in attendance at the signals; they had been in attendance between 5.30 p.m., and 8 p.m. but had not been required to act during that time as the fog had not been sufficiently dense, and as it showed no signs of becoming worse they were sent away at 8 p.m. At 8.20 p.m. the fog suddenly became very dense, and the men had then been again summoned, but had not yet arrived at their posts before the collision occurred.

*Evidence.*

1. *Patrick Melia*, signalman; 32 years' service, 16 years with the Lancashire and Yorkshire Company, nearly 16 years signalman.—I have been employed in the Footbridge cabin 2 $\frac{3}{4}$  years, and I came on duty there at 2 p.m. on the 24th February to remain

till 10 p.m. Train booker Thomas Scholes was in the cabin assisting me. I work block system both for the fast and slow lines between Victoria east junction and Cheetham Hill junction. Two light-engines passed my cabin on the fast line at 8.40 p.m., the line being

at that time clear between me and Cheetham Hill. I gave the engines the home-signal only, the advanced signal not being used in foggy weather and always kept off, and it is not usual to give the distant-signal to light-engines. I went to the window to see if the engines were together, and the fog was so thick that I could only just see them as they passed. I saw that there was a red light at the back of the last engine. I did not get "Clear" for these engines from Cheetham Hill before the collision. At 8.39 p.m. I got "Be ready" for the Normanton train from Victoria east. I did not accept the signal till 8.41 p.m., and then the train was put on line and I passed the "Be ready" on to Cheetham Hill junction, where it was not accepted. In consequence I kept my home and distant signals at danger, the advance-signal still remaining off and showing a white light (as I supposed, for I could not see it on account of the fog). I heard the train approaching and not stopping at the home-signal, and in consequence I ran to the window at the Cheetham Hill end of the cabin, showed a steady red light, and shouted at the top of my voice "Halloa! halloa!" There was no noise at the time except from the train itself. I could see the engine and the driver and fireman; I thought the driver was on the far side of the engine, and the fireman appeared to be putting on coals. They seemed to give no indications of hearing or seeing me. The speed was about 20 miles an hour, much the same as usual when the signals are off. Seeing that no notice was taken of what I had done, I threw the advance to danger before the engine would have passed it, thinking the driver might see it, and then telephoned to Cheetham Hill junction, saying, "Ben, Ben, the Yorkshire train has run past all my signals." Afterwards Ben told me he had pulled off the signal for the two light-engines as soon as he had got my message, but too late to save the collision. At this time I could see no signals, either back or front lights, on account of the fog, but I could see the tail light of the train as it passed and perhaps from 50 to 100 yards afterwards. I had no fog signalmen attending to my signals at this time; I had them in attendance from 5.30 p.m. to 8 p.m., but the fog was not during that time sufficient to require them to act, and I sent them away at 8 p.m. as the fog did not then seem to be getting thicker. About 8.20 p.m. it suddenly became dense. I took no means to get the men back myself as I heard Cheetham Hill junction asking Victoria to send for the fogmen before the collision, and they came out again at 10 p.m. Had fogmen been on duty at the time of the collision one would have been stationed about 20 yards on the Victoria side of the down home-signals to attend to the fast line, and there would have been another man to attend to the slow line. The Cheetham Hill junction distant-signal for the fast line below the down advance signal has never been in use since I have been in the cabin. There was no one in the cabin except the train booker and me at the time of the collision. The Normanton train passed at 8.43 p.m. two minutes after I had accepted it. I think I had a better chance of seeing the driver and fireman than they had of seeing me on account of the glare from the firebox door, which was open. The fog came down like a wall suddenly and began to clear again about 10 p.m.

2. *Benjamin Pennington*, signalman; 17 years' service, 16 years signalman.—I have been employed seven years in Cheetham Hill junction cabin, and I came on duty there at 2 p.m. on the 24th February to remain till 10 p.m. In the cabin I had a train booker to assist me. The "Be ready" signal for the light-engines was given me from Footbridge cabin at 8.42 p.m. I was able to accept it, and they were given "On line" at 8.42 p.m. on the down fast line; being light-engines I knew they wanted to go to Newton Heath, unless I had instructions to the contrary, which I had not received. I was not able to give them the road as I had an up train from the branch signalled on at 8.40 p.m. from Queen's Road,

and this train had not yet passed, and did not do so till 8.44 p.m. about a minute before the collision. In consequence of the up branch train I kept my down home and distant signals at danger. I did not hear the engines arrive at the home-signal and was not certain they had done so till the collision occurred at 8.45 or 8.46 p.m. The fog was very dense at this time; it had come on suddenly at about 8.15 p.m., and I could in consequence see no signal lights either back or front. Fogmen had been waiting in readiness to act till about 8 p.m., when, there being no indication of the fog getting worse, I had allowed them to go away. I telephoned to Victoria for them to return at about 8.20 p.m., and I saw that one had come back at 10 p.m. when I left duty, and when the fog was again beginning to clear. Had the fogmen been out one would have been stationed behind the light-engines to attend to my home-signals. Nearly a minute before the collision Melia informed me on the telephone that the Yorkshire train had run past his signals. In consequence I took my hand-lamp from the mantelpiece with the intention of calling on the engines, but just as I got to the door to do so the collision occurred before I had had time to call them on. I had set my road for Newton Heath, and lowered the home-signal at about 8.45 p.m. before I received the telephone message, and as soon as I could after the Colne train had passed. The engines did not come in sight of the cabin after the collision till 9.9 p.m., when they passed on to Newton Heath. The fog was so dense that I could not see any lights on the Colne train as it passed, nor could I see the light on the first of the light-engines till it came close to the cabin. I had no conversation with the driver of the Normanton train after the collision.

3. *William Richardson*, driver; 36 years' service, 23 years driver.—On the 24th February I was driver of No. 675 engine and tender. I had commenced work at 7.50 a.m. to sign off about 9 p.m. I had arrived with a train from Southport at Victoria at 8.33 p.m., and left about 8.36 p.m. to proceed to the sheds at Newton Heath, having the Victoria pilot tank-engine coupled on to my engine. I got a clear run up to Cheetham Hill junction so far as signals were concerned, but I stopped dead at the Footbridge home-signal and went to the front of the engine to look for the signal, and found it showing a white light. I was about eight yards off the post when I saw the signal. We then went on again and drew up with the footplate opposite to the Cheetham Hill junction home-signals. In about two minutes after we had stopped the collision occurred without any warning, as, although I had heard the rumble of a coming train I thought it was on the slow line. When we stopped I asked the men on the tank-engine if they could see the signal, and the fireman said "No." I was then in the act of getting off to go up the ladder and look if any signal was off, but I had not got on to the ground, when the collision took place, and knocked me violently against the tender. I was slightly injured and had to leave work for four days. I heard no whistle before the collision. My engine was driven forward two engine lengths; the brake was on at the time; the couplings did not give away between the engines nor did any wheels leave the rails. My fireman was also knocked against the tender; he was injured and is still on the sick list. At this time I could not see a light above five yards off. As I passed the Footbridge cabin I could see it, the fog not being so dense there as at Cheetham Hill junction. My engine was running chimney in front.

4. *James Collinge*, driver; 16 years' service, 15 months driver.—I commenced work on July 24th at 1 p.m. to sign off at 10.5 p.m. I was on my way to do some shunting in the Redbank carriage sidings, and left Victoria coupled on to the tender of No. 675

engine, my engine being a tank engine running coal bunker in front. I should have been detached from No. 675 after passing through Cheetham Hill junction. I was keeping a look-out for signals on the way up the bank. We first stopped at Footbridge home-signals, which I could not see owing to the steam of the leading engine, but we went on as No. 675 engine whistled, and I concluded that its driver had seen that the signal was clear. I could see the Footbridge cabin as we passed by it. We then proceeded to Cheetham Hill junction, and stopped with the footplate of No. 675 opposite the home-signal post, as Richardson told me, though I could not see it myself. I could not see the home-signals from my footplate and so got off on the 6-ft. side, and went round in front of No. 675 engine, and as I passed the footplate of No. 675 said to the driver, "I do not think we are up to the signals," but he made no reply. I then went on and was crossing the rails of the down fast line in front of No. 675 engine, when the collision occurred, and I was knocked down by the buffer-beam into the 4-ft. space, and managed to stretch myself on the ballast with my head towards Newton Heath face downwards, and in that position both engine No. 675, its tender and my own engine, passed over me, just cleared me and then stopped. Nothing touched me on either engine, but I was scratched in the face, and had to go on the sick list for a few days. A red light had been, I believe, burning at the Manchester end of my engine on the buffer-beam. It was knocked off by the collision. I had heard nothing of the coming train as the ejector was blowing on Richardson's engine. I could see the glare of Richardson's engine from my footplate, but not beyond that. I did not speak to the driver of the Normanton train after the collision, which occurred about 1½ minutes after we had stopped. I had heard no noise of the signal dropping after we had come to a stand. I heard no train pass on the line just before the collision, but one passed us near the Footbridge signals.

5. *James Mawdesley*, fireman; six years' service, six months fireman.—I have been about three weeks with Collinge, and I was with him on February 24th. I coupled my engine on to No. 675 before leaving Nitse for Redbank sidings. I coupled on the bunker end to the tender of No. 675. I put on a red lamp at the Victoria end of the engine at the junction of the chimney with the smoke-box. We had stopped about 1½ minutes at Cheetham Hill junction when the collision occurred. I was on the footplate at the time and I was knocked against the coal bunker, but not hurt. I had heard the rumble of a train before the collision, but thought it was on the slow line. I was looking for the signal at the time, but could not see it on account of the fog. My driver had got off on the 6-ft. side to go and look for the signals, and he was knocked down and passed over by both engines. The Normanton engine stopped about eight yards from mine. My tail-lamp was knocked off and I could not find it.

6. *George H. Hirst*, driver; 28 years' service, 19 years driver.—I am thoroughly conversant with the signals between Victoria and Cheetham Hill junction. I signed on duty at 10.50 a.m. on February 24th to sign off after reaching Normanton at 10.50 p.m. My engine was No. 698, and it has eight wheels, viz., four coupled wheel and a four-wheeled leading bogie and a six-wheeled tender. The automatic vacuum-brake is fitted to the coupled wheels of the engine and to the tender wheels, and it was fitted throughout the train, which consisted of five vehicles. We started punctually at 8.40 p.m. from No. 6 platform Victoria for Normanton, the first stop being Middleton junction. The fog was not very thick at Victoria, and on passing the east junction advanced

signal I saw it was off, but I cannot say what the signal below it, viz., the distant-signal from Footbridge cabin was showing. I cannot explain why I missed seeing this except that I was crossing over from the left to the right hand side of the footplate to open the sand-valves, the fireman being engaged with the fire at the time. I went on and missed seeing the Footbridge cabin home-signal, owing to the fog which was very thick, and my not exploding any fog-signal near the home-signal. On passing the carriage sheds near Bank Street Bridge I knew that I must have passed the Footbridge home-signal, and I accordingly shut off steam and proceeded cautiously, allowing the engine to run without steam, and expecting to come to the Cheetham Hill junction home-signals, until I came into collision with one of the engines standing on the main line, the light at the back of which I saw only about five yards off. My speed at the time was five or six miles an hour. I had no time to apply my brake before striking, though I found it on after the collision. The fog began to thicken from the east junction advance-signal, and thence remained very thick. I did not realise I was so close to Cheetham Hill junction when I struck one of the light-engines. I was not hurt, nor was my fireman. After the collision I went forward a few yards, and there was then a gap of a few yards between my engine and the tank engine. The coupling between the first vehicle and the engine jumped off, and there was an interval of a few yards between it and the engine.

7. *George Jagger*, fireman; seven years' service, 14 months fireman.—I have been with Hirst three weeks, and was with him on the 24th February, my hours being the same as his. We started for Normanton about 8.40 p.m., my place being on the 6-ft. side. I saw no signals at all on the way to Cheetham Hill. My driver said nothing about having missed the Footbridge home-signal, and I was unaware whether he had seen it or not. He shut off steam just on passing the carriage sheds, and he did not put it on again before the collision, which occurred without any warning when the speed was five or six miles an hour. I was looking ahead when the collision occurred, but saw nothing of the red light at the back of the engine we struck. I was not hurt. I saw nothing of the Footbridge cabin as we passed it, and heard no shout from the signalman.

8. *William Robert Hooper*, guard; 16 years' service, 10 years guard.—I commenced work at 6.45 p.m. on February 24, to sign off at 6.45 a.m. I was the only guard of the 8.40 p.m. train from Victoria for Normanton. It consisted of two third-class, two composites (first, second, and third), and a brake-van, five in all; the automatic vacuum-brake was fitted to the vehicles, and there were about 18 inches of vacuum in the gauge. We started punctually. I was unable to see either the advance-signal of the east junction or the distant-signal below it from smoke and fog; the fog then became thicker, and I could not see the Footbridge home-signal, nor the cabin as we passed it. I got into the elevated part of the van to see if I could make out the Footbridge advance, but was unable to do so. Steam was shut off after we had passed under the bridge and after I had looked out of the window for the Cheetham Hill junction home-signal, and failing to see it, I had come into the van again when the collision occurred at a speed of seven or eight miles an hour. I was thrown across the bench, but not hurt to any extent. The collision occurred between 8.44 and 8.45. At this time I could see the carriage in front of the van, but no further. When the collision occurred the engine and front vehicles separated and went forward a few yards. I heard no brake whistle. The brake went on when the collision occurred.

*Conclusion.*

This collision during a fog, which had suddenly become dense, must be solely attributed to carelessness on the part of Hirst, the driver of the passenger train. Hirst first of all passed the distant-signal of the Footbridge cabin without noticing whether it was or was not at danger, though as he had been able to see that the signal above it was off he was justified in proceeding as far as the Footbridge home-signal, 340 yards from the distant-signal, where he ought to have stopped, as this signal was at danger. Owing to the density of the fog, which was thicker than it had been nearer Victoria station, he missed seeing this signal, and became conscious that he must have done so on reaching a place which, from his description, must have been some 400 yards beyond it; he there shut off steam and proceeded, as he says, cautiously towards Cheetham Hill junction until he saw about five yards in front of his engine the red light on the back of the second engine of the two which were standing at the junction home-signals. He says that his speed at this time did not exceed five or six miles an hour (his fireman agreeing with this, but the guard estimating it at seven or eight miles an hour) and that he had no time even to apply the vacuum-brake before the collision occurred with sufficient force to drive the two engines (with their brakes on) forward up a gradient of 1 in 130 nearly 30 yards, his engine stopping a few yards short of the rearmost of the two engines and the first vehicle (which had become detached from his engine, the automatic action of the brake having been thus called into play), stopping a short distance from his (Hirst's) engine. If Hirst had acted with ordinary prudence he should, on finding he had entered a block station without knowing whether or not it was clear, and in the presence of so dense a fog as this no doubt was, have at once stopped, sent forward his fireman in advance of the engine, and followed him at a walking speed until the fireman had come to any engine or train standing at the junction home-signals, or, if there were none, to the signals themselves. Instead of doing this he simply shut off steam and allowed the speed of 20 miles an hour, at which he had probably been running, to expend itself without doing anything more, not even whistling.

Hirst has been a driver for 19 years and is thoroughly conversant with the line between Victoria and Cheetham Hill junction. He had signed on duty at 10.50 a.m. to sign off at 10.50 p.m., and thus had been at work about 10 hours (during which time he had been standing about 3½ hours in four periods varying between 24 minutes and 72 minutes) when the collision occurred.

Jagger, Hirst's fireman's hours were the same as his own; as Jagger was necessarily attending to the fire after leaving Victoria station, firing not being allowed in the station, he cannot be held responsible for what occurred.

Nor can Hooper, the guard of the train, who was in a worse position for seeing signals or anything ahead than the driver, and was unconscious that Hirst had not seen the Footbridge cabin home-signal. Hooper had been on duty two hours out of 12 when the collision took place.

Signalman Melia, in the Footbridge cabin, on hearing that the passenger train had not stopped at his home-signal, tried to attract the attention of the driver as the engine passed his cabin by showing a red light and shouting. He could just see the engine by the glare of light from the firebox door, which was open, but doubts whether the driver could see him. In addition to this he threw the advance-signal (not used in fog) to danger, and at once telephoned to Cheetham Hill junction that the train had run past his signals. Melia therefore appears to have acted with intelligence and promptitude.

Pennington, the Cheetham Hill junction signalman, was unable to allow the two engines to proceed at once to Newton Heath as he had a branch train signalled which did not pass till 8.44 p.m., two minutes after they had been given "On line" from Footbridge cabin. He had no actual knowledge that they had arrived till he heard the collision take place between 8.45 and 8.46 p.m., about a minute before which Melia had telephoned to him that the passenger train had run past his signals. Pennington in consequence had, after setting the road and lowering the signal, just got to the door to call the engines on, believing them to be there, when the collision took place.

Both Melia and Pennington are experienced signalmen, and had completed 6¼ hours work, out of a total of eight hours, at the time of the collision.

The driver and fireman with the two engines are in no ways to blame; on the contrary they appear to have been acting with commendable caution.

Not having been able to see the Footbridge cabin home-signal, they had stopped at it until one of the drivers had been able to see that it was off. In the same way they

had stopped opposite the Cheetham Hill junction home-signal post, and driver Collinge was in the act of going round by the front of the leading engine to mount the ladder to see what the signal was indicating when the collision occurred, Collinge being knocked down on his face into the 4-ft. space, and in that position being passed over by both engines, happily without being further injured than by his fall.

Richards, the other driver, and his fireman, had been on duty about 13 hours when the collision occurred, their booked time being 12½ hours. Collinge and his fireman had been on duty 7¾ hours, their booked time being nine hours.

This collision would probably not have occurred had the fog-signalmen been at their posts. They had been dismissed only three-quarters of an hour before the collision (after having been in attendance, but not required, since 5.30 p.m.), as the fog appeared to have then dispersed. On it suddenly again coming on with great density at about 8.20 p.m. the fogmen were at once sent for, but could not be reassembled till after the collision.

This is a strong argument in favour of some mechanical system of fog signalling, which would at any rate be available in case of emergency such as this, if it cannot entirely supersede the necessity of employing fog-signalmen.

I have, &c.,

The Assistant Secretary,  
Railway Department, Board of Trade.

C. S. HUTCHINSON,  
Major-General, R.E.

Printed copies of the above report were sent to the Company on the 26th March.

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## LONDON AND NORTH-WESTERN RAILWAY.

Board of Trade, (Railway Department),  
24th January 1891.

SIR,

IN compliance with the instructions contained in your Minute of the 13th instant, I have the honour to report, for the information of the Board of Trade, the result of my enquiry into the circumstances, which attended the double collision that occurred on the 7th instant at Balshaw Lane crossing, near Euxton station on the London and North-Western Railway.

The waggons of an up goods train became separated from the engine and tender, overtook, and then ran into the latter, when they were brought to a stand between the home and advance signals at Balshaw Lane, and some of the waggons, which were thrown on to and foul of the down line by this collision, were run into by the 12 (midnight) down passenger train from Euston, which was approaching Balshaw Lane at the time. The fireman of the goods engine, who got off his engine as soon as it stopped to go and enquire why the up line signals were at danger, was struck and killed by the down passenger train engine, but no other persons were hurt.

The goods train consisted of an engine and tender, 28 loaded, five empty waggons, and a brake-van at the tail of the train in which the guard in charge was travelling.

When this train was passing the Euxton junction cabin, the signalman on duty there noticed that the engine and tender were about 40 or 50 yards in advance of the waggons, so he gave "Train divided" signal to Balshaw Lane, showed a red light, and shouted to the driver of the bank engine that was pushing behind the goods train.

The signalman at Balshaw Lane received the notice that the goods train was entering the section at 6.8 a.m., and the "Train divided" signal at 6.9 a.m., so he placed his up signals at danger, and said that he looked out for the train.

The goods train engine and tender reached his cabin at 6.11 a.m., and the waggons of the train at 6.12 a.m. The goods engine had passed the Balshaw Lane up distant-signal before it was put to danger, and the driver observed that the home-signal was at danger when he was about 200 or 300 yards from it. He applied his brake, but he could not stop his engine until it was about 120 yards beyond the home-signal, which he passed at a speed of about 15 miles an hour. He found the advance-signal also at danger. As soon as he stopped his engine the fireman got off at the down line side, went back to see what was the matter, and then shouted to the driver that "There was no train." The driver heard his train approaching at the same moment, and tried to move his engine forward, but he failed to do so, as it was on its centre, so the train of goods waggons ran into the tender and pushed both it and the engine forward about 500 yards. The first, and probably one or two more waggons, were thrown foul of the down line, and were immediately run into by the down passenger train which left Euston at midnight.