

Robert Scream states: I have been 25 years in the service, and a guard for 16 years. On the 7th July I came on duty at 7.30 a.m. at Liverpool. My Sunday tour of duty lasts till 10.10 p.m., but I am booked off from 10.40 a.m. till 12.40, and from 2.33 till 8.45 p.m. I was guard of the 7.10 p.m. train from Liverpool to Preston. We started at 1.10 p.m. with train made up as follows:—Engine, tender, milk truck, brake-van, one composite, one first-class, and four third-class carriages. I was riding in the brake-van. The train was fitted throughout with the automatic vacuum brake. Before starting the driver said he had not been into Preston since Good Friday, and asked me to check him if he was going by the stations. I told him that I would. He did not ask me anything particular about Preston station. I did not know that he was uncertain of the road and signals at Preston. Coming into Preston we came nearly to a stand at the home-signal, reducing to a speed of between three and four miles an hour. The proper signal for our line was lowered, and we proceeded at the usual speed of about four miles an hour. I looked ahead and saw that the proper signal for No. 1 bay was lowered. I knew that as usual we would turn into this bay. After passing the cabin the driver applied a little steam and then shut off again. After

passing the splitting points I thought he was going a little too fast, so I applied the vacuum brake, reducing the vacuum from 17 lbs. to 13 lbs. When about 20 yards away from the buffers we were still not pulling up, so I put the vacuum in full power, but it struck the buffers at a walking speed. There were 30 or 40 passengers in the train. Only two complained of injury. I was badly shaken myself.

Matthew Robert Harwood states: I have been about 11 years in the service, all the time at Preston as porter. On the 7th July I was standing on the platform when the train from Liverpool, due at 2.33, arrived. I was standing near the points leading out on to the main line. I saw the train coming, and just before the engine reached the end of the platform I thought the driver was going to stop short of the points, as they often do, so I called him on. I remained near the points, and as the engine passed me I called out "steady," as I thought he was going too far up. He was going at about four miles an hour at the time. I did not think he would strike the buffers. There was, I think, room to stop after the points. I did not see the driver apply the brake after he passed me. None of the train left the rails.

Conclusion.

This slight collision was due to the fact that the driver was not only entirely ignorant of the signals and lines leading into Preston from the East Lancashire line, but was singularly unobservant. Had it been otherwise he must have found out that his train was going into one of the bays when he was turned through the facing-points on the down main line, 300 yards outside the down main line platform, and across the up main line. Having then so completely lost his way, it was not surprising that he did not see the buffer-stops until close upon them, for No. 1 bay line runs alongside the up platform, without any platform outside it, and it is upon a sharp curve to the right. The train was running at very moderate speed, and the driver had released his brake slightly upon being called forward by a porter, who thought that he was going to stop too soon, so that it might easily have been pulled up in time if the driver had known where he was.

It was the driver's duty to ask for a conductor at Lostock Hill station, as he was strange to the road, but I do not think it right that a driver in this position should be sent out with a cleaner to act as fireman who also was not familiar with the line.

The evidence discloses the fact that the working hours of the driver, who at the time of the accident had been on duty for about $7\frac{1}{2}$ hours, were upon this day a great deal too long. It is true that it was not a regular, but an exceptional, day's work; but no man can keep his attention up, so as to be an efficient driver, for a period of 15 hours.

There was a breach of the actual letter of the rule regarding trains entering the bays at Preston, for the signal was lowered for this train before it had actually come to a stand. This did not contribute to the accident, but the signalman should be warned that the rule must be literally obeyed, or else the rule should be modified.

The Assistant Secretary,
Railway Department, Board of Trade.

I have, &c.,
F. A. MARINDIN,
Major, R.E.

Printed copies of the above report were sent to the Company on the 14th August.

LANCASHIRE AND YORKSHIRE RAILWAY.

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

9th January 1890.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 9th ultimo, the result of my enquiry into the causes of a double collision which occurred on the 7th ultimo, at Cheetham Hill junction, near Victoria station, Manchester, on the Lancashire and Yorkshire Railway.

In this case, the 7.50 p.m. London and North-Western Company's coal train from Plodden Lane for Rochdale, viâ Cheetham Hill junction, which was being assisted up the bank by a Lancashire and Yorkshire Company's bank engine at the rear of the train, was, while standing at the junction signals on the down fast line, run into at the rear by the 10.45 p.m. Lancashire and Yorkshire Company's down passenger train from Victoria station for Ramsbottom. By the force of the collision the rear van of the coal train was thrown foul of the up fast line and run into by the 9.40 p.m. Lancashire and Yorkshire Company's up passenger train from Bacup for Victoria, where it was due at 10.48 p.m., the collision occurring at 10.49 p.m.

In the down passenger train two passengers had their ribs broken, and 60 others (principally in the Ramsbottom train) have complained of injury.

The fireman of the Ramsbottom train was killed on the spot, when, it is supposed, in the act of jumping off his engine. The driver and guard of this train were also injured.

The guard of the coal train was seriously injured; another company's servant in the same train, who was learning a guard's duties, and the fireman of the bank engine, were also injured.

The Ramsbottom train consisted of an eight-wheeled tank-engine, running chimney in front, and eight vehicles, including a brake-carriage in front and a brake-van behind, the whole train being fitted with the automatic vacuum-brake. The buffer-beam of the engine was forced under the tender of the bank-engine, and the five vehicles behind it were knocked off the rails, the second one being turned partly over on its left side.

The Bacup train consisted of an eight-wheeled bank engine, running chimney in front, and 10 vehicles, including a brake-van in front, and a brake-carriage in rear, the whole train being fitted with the automatic vacuum-brake. The engine and front brake-van left the rails with all their wheels.

In the coal train, which consisted of an engine and tender, 17 waggons, and a brake-van, the brake-van and waggon in front of it were knocked off the rails, the brake-van being badly damaged.

The bank engine was a tender engine running engine in front. The back of the tender was lifted off the rails by the engine of the Ramsbottom train.

A list of the principal damage is given in an Appendix.

Description.

From the East end of Victoria station Manchester to Cheetham Hill junction, a distance of about 66 chains, there are four lines of rails, the two northern lines being designated "fast lines," and the two southern, "slow lines." There are ascending gradients all the way from the station to the junction, viz. :—

7 chains	-	-	1 in 57
10 "	-	-	" 65
49 "	-	-	" 150

There is one intermediate block-signal cabin called "Footbridge" about half-way up the bank, placed on the south side of the lines. The down home-signals (four in number) on brackets—one for the fast, and one for the slow line, one from fast to slow, and one from slow to fast—worked from this cabin, are placed 135 yards to the west of it, and the down advanced signals (two in number on a bracket, one for the fast, and the other for the slow line) are 280 yards to the east of the cabin, or 415 yards from the down home-signals. These advanced signals, which are of the same height, are placed (for better sight) on the south side of the lines, but on account of a curve and high retaining wall, that for the down fast line is visible only 230 yards off.

The collision between the Ramsbottom train and the bank engine at the back of the coal train took place on the down fast line about 125 yards east or outside of the down advanced signals, and that between the Bacup train and the van of the coal train nearly at the same spot on the up fast line. The light at the back of the tender of the bank engine could be seen from the foot-plate of the approaching engine for about 125 yards.

Evidence.

1. *Alfred Clarke*, driver; 19 years in the London and North-Western Company's service, driver 12 years.—I was driver of the 7.50 p.m. coal train from Plodden Lane for Rochdale on the 7th December. On leaving Victoria station the train consisted of 17 vehicles and a brake-van. From Victoria the

train was assisted up the bank by the Lancashire and Yorkshire bank engine behind the van. We just came to a stand at the Footbridge home-signal. After being nearly stopped I found the advanced-signal off, and we proceeded to Cheetham Hill junction down home-signal on the fast line, where I stopped. I had stopped there four minutes when I got a shock on the engine through something that had occurred at the back of the train. My engine was knocked forward about ten yards by the blow. The fireman and I were not hurt, but we were knocked backwards into the tender. Just as we received the shock the tail of a passenger train was passing the junction on the up fast line, so that I had no opportunity of signalling to the driver of that train. There was no time to do anything to alarm the servants of the passenger train. I heard a slight noise soon after the passenger train had passed. After I had recovered myself I went back and found that damage had been done to the rear end of my train. The train remained all coupled together as far as the last waggon. This last waggon was damaged and off the road, and the brake-van was 40 or 50 yards away on the Manchester side of the tail of my train, fouling both the up fast and the down slow lines, and mixed up with the engine of the up passenger train. The bank engine was off the road about 10 yards from the last waggon of my train. The engine of the Ramsbottom train was embedded in the rear of the bank engine. I had no conversation with the driver of the Ramsbottom train. The night was fine, but there was a very slight fog, not sufficient to impede the view of the signals. I gave a double whistle just as I was coming to a stand at the Cheetham Hill junction home-signal, but after that I did not whistle before the collision took place. I knew that the signal being off for the incoming Bacup train detained me at the junction until it had passed. The collision occurred at 10.49 p.m. I was nearly an hour before the booked time, being allowed one hour and a quarter at Ordsall Lane, where, being Saturday night, there was no work to do. My engine sustained no damage.

2. *Frederic Clague*, fireman; four years in the London and North-Western service, extra fireman about 12 months.—I was Clarke's fireman on the evening of 7th December with the Plodder Lane coal train. After passing through Victoria we got a bank engine to assist us up the bank. We were brought to a dead stand at the home-signals at Footbridge cabin, and remained about one minute, and then we proceeded on the fast line to Cheetham Hill junction, where we were stopped at the home-signals. The driver whistled two for the right-hand road before he had stopped at these signals, but he did not whistle after he had stopped. After being stopped about four minutes we received a shock from behind which knocked me into the tender. When we got the shock the tail of a passenger train was passing on the up fast line. The night was clear and moonlight. My engine was knocked forward about six or seven yards by the collision, but there was no fracture between it and the next waggon to it. I was not hurt. Driver Clarke and I signed on duty at 5.0 p.m. to sign off about 6.0 a.m.

3. *William Raymond*, goods porter; eight months in the London and North-Western Company's service, in training as a goods guard for a fortnight before the collision.—I was learning my duties with guard "George Crane" on the 7th December, and I accompanied him with the 7.50 p.m. coal train from Plodder Lane for Rochdale. I was with him in the rear brake-van of the train, and it was after passing through Victoria station while the train was still moving forward that the bank engine came up behind to help us up the bank. It was not coupled up to the van. I do not remember the train stopping between Victoria station and where the collision occurred. We had been standing about three or four minutes

when the collision occurred while both Crane and I were in the inside of the van. We were taken quite unawares. I do not know what occurred after the collision took place until I came to my senses on the ground, having been taken away from the van. I was a good deal injured and bruised. The night was fine and moonlight.

4. *Robert Taylor*, driver; 38 years in the service, 20 years driver.—I signed on duty at 12.20 p.m. on the 7th December. I was driver of the 9.40 p.m. passenger train from Bacup for Manchester, where I was due at 10.48. I had last stopped at Crumpsall, and left at 10.42, when the train consisted of a tank-engine, running chimney first, and 10 vehicles: the whole train being fitted with the automatic vacuum-brake applying to six coupled wheels of the engine, the trailing wheels being radial. There was a brake-van next the engine and a brake-carriage in rear. On approaching Cheetham Hill junction I found the distant-signal off, and could not at first see the home-signal for a bit of mist. I had had steam shut off for about a mile, and I checked the train with the brake until I could see the home-signal, and when I saw it it was off for the up fast line, and I passed the junction at a speed of about 20 miles an hour. Before I got to the junction I had not seen an engine of a coal train standing at the junction on the down fast line. I knew nothing of any collision in connection with a coal train until I ran into the van. I had not seen any lights nor heard any whistle to give me any indication that anything was wrong. I was running I think at a speed of 20 miles an hour when I struck the van. As soon as I felt that I had struck something I put the vacuum brake on hard. The engine ran from 50 to 55 yards after striking the van, and when it stopped it was off the road with all its wheels towards the right. My train remained all coupled together, the first van being off the road, but the rest of the vehicles on the road. Neither I nor the fireman was hurt so as to have to leave our work. I saw the driver of the Ramsbottom train seven or eight minutes after the collision, and he asked me about his fireman, who was missing; but no conversation passed between us as to the cause of the collision between his engine and the coal train. It was a fine moonlight night. The tickets had been collected at Crumpsall. I think the brake was useful in preventing the carriages of my train from telescoping. I had about 22 inches of vacuum at the time of the collision.

5. *Paul Pearce*, fireman; 7½ years in the service, fireman about six months.—I am Taylor's regular fireman, and was with him on the 7th December with the 9.40 p.m. passenger train from Bacup for Victoria. I signed on duty at 11.30 a.m. to finish work about 12 midnight. We had last stopped at Crumpsall. On approaching Cheetham Hill junction the signals were all off. I think we passed the junction at a speed of about 25 miles an hour. I did not see the coal train standing on the down line at the junction. The collision took me entirely unawares. I saw nothing of the van fouling the up fast line until my engine struck it. I had just seen the Footbridge signal off, and I had no sooner said it was so than the collision occurred. My mate had his hand on the vacuum brake-handle and applied it at once. I had my hand on the brake-handle at the time, and just gave it a turn. I stuck fast to the engine and was not hurt. We swept the van in front of us, and stopped in about 50 yards. The engine rolled over to the right, and struck some of the carriages of the other train, which prevented it turning right over, and it enabled it to right itself. The night was slightly misty, it was moonlight. I saw nothing of anything having fouled the line on which I was travelling.

6. *John Oakes*, guard; 30 years in the service, 18 years guard.—I was guard of the 9.40 p.m. passenger train from Bacup for Victoria on the 7th December. The train consisted of 10 vehicles, the first vehicle

being a brake-van, and the last vehicle a brake-carriage in which I was riding, and I could, if necessary, apply the continuous brake from the compartment of this brake-carriage. We were keeping time and had last stopped, before the collision, at Crumpsall, which station I left at 10.44, one minute late, this minute having been lost in collecting tickets. From Crumpsall I do not think there were more than 50 or 60 passengers in the train. I felt no slackening of the train as we approached and passed Cheetham Hill junction, where the speed was from 15 to 20 miles an hour, about our usual speed in going down the bank. I saw nothing of the coal train standing at the junction as we passed, though I was looking out of the van side-light on the right side. The collision took me entirely unawares. I was not knocked down nor hurt. The train did not stop very quickly, although more quickly than if pulled up by the brake alone. I did not hear or see anything to indicate that the brake had been put on. The only vehicle off the rails was the front van, and I only heard one passenger complain of injury in my train. The collision occurred as near 10.48 as possible. The night was fine and moonlight. There was no rebound of the train after we stopped, which leads me to conclude that the brake must have been put on.

7. *Joe Cooper*, driver; 20 years in the service, 14 years a driver.—I came on duty on the 7th December at 12.30 p.m. to sign off about 12.30 a.m. I was in charge of engine No. 625, an eight-wheeled engine with four-coupled wheels, and a four-wheeled trailing bogie, and at 10.45 p.m. I was attached to the passenger train from Victoria for Ramsbottom. It consisted of eight vehicles, including a brake-carriage next the engine, and a brake-van at the rear. The train was fitted throughout with the automatic vacuum-brake applying to the four-coupled wheels of the engine, and to four wheels of each of the vehicles. We started about right time from No. 7 platform. On approaching Footbridge signal-cabin I found the distant-signal for the down fast line at danger, but the home-signal was off when I first came in sight of it. The signal I allude to is the left-hand one of the four home-signals. The extreme right signal of these four was also off for the down slow line. I then passed the signal-cabin, and received no signal from the signman as I passed it. I then came in sight of the advanced-signals of the Footbridge cabin. There are two advanced-signals, one for the fast and one for the slow line, and both of these signals were off when I first saw them coming round by the wall. I saw both these signals at about the same time, having walked across from the left-hand to the right-hand side of the foot-plate to look for them, and, I have no doubt whatever in my mind that both those signals were off. The distant-signal for Cheetham Hill junction, which is below the home-signal of the Footbridge cabin, was at danger when I passed it. On finding the advanced-signal of the Footbridge cabin off, I went on expecting I might be stopped at Cheetham Hill junction, but not expecting to find anything between the advanced-signal and the junction. Just as I was passing under the bridge beyond the advanced-signal I saw some steam, and at the same time the junction-signal at danger. I then thought something was wrong, and shut off steam, and put on the vacuum-brake with full force, the vacuum-gauge showing at the time 20 inches, my speed at the time not being more than from 12 to 14 miles an hour. I had given one whistle out of four for the junction, when I caught sight of the steam from the engine, and did not in consequence give the remaining three junction whistles. I had not time to whistle for the brakes. I do not think my speed had been reduced before I struck the engine at the back of the coal train, on the back of which engine I saw no light, though there might have been one without my seeing it. I am sure I got my brake on before striking the bank engine. I remained on the engine, and was hurt on my hip, and have been on the sick-list ever since. My fireman,

“Abraham Riley,” who had been with me for six weeks, was missing from the foot-plate when I looked round directly after the collision. His place was on the right-hand side, and whether he jumped off the foot-plate or was knocked off I cannot say. After the collision I saw him picked up from underneath the London and North-Western brake-van, he having been swept forward with it in front of the Bacup train. He was quite dead. The night was very fine and moonlight. The collision occurred about 10.48 p.m. I saw nothing of the Bacup train coming. There was no appreciable time between the first and second collisions. My engine did not leave the rails, but the buffer-plank was forced underneath the tender of the bank engine. The brake-carriage next the engine and the one behind it were both off the rails; these were all I saw off the rails. The train for which I had seen the signal off on the down slow line did not pass before the collision. There was no steam coming from my engine except the exhaust steam as I was approaching the Footbridge signals; I did not cross the foot-plate on passing the Footbridge cabin, though I looked towards it. Had the signman shown any signal I should have seen it. I usually give the whistles for the junction where I had commenced to do so on the present occasion, and I had not whistled for the junction or slackened speed further back.

8. *Thomas Lord*, guard; 15 years in the service, 11 years guard.—I was guard of the 10.45 p.m. passenger train from Victoria for Ramsbottom on the 7th December. It consisted of eight vehicles, the first being a brake-carriage, and the last a brake-van. I was in the rear van, from which van I could, if necessary, apply the continuous-brake. I cannot say whether the vehicles composing the train had four or six wheels. The vacuum-gauge showed 20 inches on starting from the station. On approaching the Footbridge signal cabin I saw the distant-signal for the fast line at danger, and the home-signal, namely, the left-hand one of the four, off, the other three home-signals being at danger. I first saw the home-signal off on passing the Victoria advanced-signal, and I kept sight of it till within 100 yards of it, during which time it remained off, and after this I did not look further at it. The next signals we came to were the advanced-signals of the Footbridge cabin, but as to the position of these signals I cannot speak, as, though I was looking for them, the steam and smoke, either from my engine or from the bank engine behind the coal train, obscured the view of these signals, and I never saw them. The collision took me quite unawares. I had not seen anything of the light at the back of the bank engine though I was looking for the home-signal at Cheetham Hill junction; but I did not see it before the collision. I think the speed, just before the collision, was from 16 to 20 miles an hour. I felt the train checked slightly before the collision occurred, and I heard the noise of the air from the application of the brake, and I saw the gauge fall to nothing from 20. I was knocked down by the collision to the bottom of the van. I was badly shaken and had to go on the sick list for a week. The first vehicle on my train was off the rails, the second one was thrown on its left side; the three next were off the rails, and the three last were on the rails. Nothing passed between driver Cooper and me as to why he had run into the bank engine. The night was moonlight with a slight mist at places. I did not hear driver Cooper give any whistle before the collision. There were not many passengers in the first two carriages. As we passed the Footbridge cabin I looked towards it, but saw no light or signal given from it. I should have seen a light or signal had any been given. I felt no check at all to the speed of the train after leaving Victoria until just before the collision. There was steam hanging about the line as I passed the Footbridge cabin; it might have prevented my seeing a signal given from it.

9. *John Heapy*, driver; 19 years in the service, eight years a driver.—On the 7th December I was driver of the 10.45 p.m. passenger train from Victoria for Bury via Heywood. We left the station at 10.47, and we ran towards Cheetham Hill junction on the down slow line. On approaching the Footbridge cabin I found the home-signal, that is the right-hand one of the four, off. This was the only one of the four that I saw off. The next signal was Footbridge advanced-signal, but I did not come in sight of this, as before reaching the home-signal it was put to danger, and in consequence I stopped my train at the home-signal. I did not at this time know why the signal had been reversed, but was informed afterwards by my fireman, whom I sent to the signal cabin, that there had been a collision. I had not seen the home-signal for the slow line myself, but my fireman saw it off and then put to danger; and I attended to what he said. I had got about 100 yards in advance of the Victoria starting-signal, when the fireman said the Footbridge home-signal was put to danger.

10. *John Thompson*, fireman; eight years in the service, three years a fireman.—I have been about a month working with driver "Heapy," and I was with him on the 7th December. I was fireman of the 10.45 p.m. passenger train from Victoria for Bury. My place was on the right-hand side of the engine. We left Victoria two minutes late. On catching sight of the Footbridge cabin home-signals, just before reaching the Victoria advanced-signal, I saw the down slow line signal off, and I also saw at the same time that the left-hand signal of the four signals, namely that for the down fast line, was off. On approaching these signals I first saw that for the down fast line put to danger, and then the signal for the down slow line was thrown on, at which time we were about passing the Victoria advanced-signals. On seeing this I told my mate, and we pulled up at the home-signals, I think there may have been a minute between the two signals being thrown to danger. I never caught sight of the down advanced-signals from Footbridge cabin.

11. *James Mather*, signalman; 17 years in the service, 15 years a signalman.—I have been employed about five years in Cheetham Hill junction cabin, and I came on duty there on the 7th December at 10.0 p.m. to remain until 6.0 a.m. on the 8th. I have a train booker with me in the cabin. I received the "Be ready" signal for the London and North-Western coal train at 10.43, and accepted the signal, and gave "Line clear" at 10.43, and it was put "On line" at the same time. At 10.45 I received the "Be ready" for the 10.45 p.m. passenger train from Victoria for Ramsbottom, at which time the needle of the down fast line instrument was at "Train on line" as the coal train was standing at the junction. I did not accept the signal, and it was not given again. At 10.39 p.m. I received the "Be ready" signal for the Bacup train from Crumpsall. I accepted it and gave "Line clear" at the same time, and it was given "On line" at 10.46. I passed the signal on to Footbridge, and on the signal being accepted, and "Line clear" given, I took off both home and distant signals for the Bacup train, and the train passed the junction at 10.49. I cannot speak as to the speed of the train: I do not think it was quite so fast as usual, though why I cannot say. When the middle part of the Bacup train was about passing the cabin I saw the levers being shaken in the cabin, through some cause which I could not at the time account for. I did not hear the collision occur between the Bacup train and the van of the coal train. The first I knew of there having been a collision was by telephone from the Footbridge cabin just after I had perceived the shaking of the levers. The message said that the signalman thought the Ramsbottom train had passed his signals. I was quite aware that the coal train was standing at this time under my signals. I did not observe that the engine of the coal train was knocked forward towards my cabin when I observed

the vibration of the levers. The night was fine and moonlight. A few seconds after receiving the message from Footbridge cabin I replied that if the Ramsbottom train had passed the signal it would have run into the coal train and the Bacup train would have run into the obstruction.

12. *Charles Abbott*, signalman; four years' service, 14 years a signalman.—I have been six years in the Footbridge cabin, where I came on duty at 10.0 p.m. on the 7th December to remain until 6.0 a.m. on the 8th. A train-booker was with me in the cabin. His name is "Hugh Hughes." I received the "Be ready" signal from Victoria for a coal train on the down slow line at 10.34, and at the same time I accepted the signal and received the train and put the needle to "Train on line." I then got the signal—two, pause, two—for the bank engine to follow the coal train, and I answered with one beat. The train passed the cabin about 10.43, and I crossed it over on to the down fast line, having warned it forward to Cheetham Hill junction at 10.41, and the pilot engine passed behind it close up to it. At 10.45 I received the "Be ready" for the Ramsbottom train from Victoria East. At this time the fast line between me and Cheetham Hill junction was still occupied by the coal train. I offered the "Be ready" for the Ramsbottom train to Cheetham Hill junction, but Cheetham Hill junction did not accept it. I accepted the "Be ready" from Victoria East and took "Train on line" at 10.45. I kept my signals for the down fast line at danger, namely, the distant home and advanced. I received the "Be ready" signal for the Bury train (via Heywood) on the down slow line at 10.47, and I accepted the signal and took it "On line" at the same time. I warned it forward to Cheetham Hill junction, and on Cheetham Hill junction accepting the "Be ready" at 10.47, I lowered the home and advanced signals for the down slow line (but not the distant-signal) about half a minute afterwards, when Cheetham Hill junction lowered his distant-signal. About 10.48 I heard the engine of the Ramsbottom train whistle four for Cheetham Hill junction, the engine being at this time, I presumed, near the Footbridge home-signals. Upon hearing these whistles I lowered the home-signal for the down fast line, but still keeping the advanced-signal for the down fast line at danger; the advanced-signal for the down slow line being off at the time. Just as I lowered the down fast line home-signal I put a green light outside the west window of the cabin to caution the driver of the Ramsbottom train that the advanced-signal was at danger against him. The rule is to give a green signal for drawing up or slackening a train at the home-signal. The engine of the Ramsbottom train then passed the cabin at a moderate speed, I not having any idea that the train was going to pass the advanced-signal, but as steam was coming from the front of the engine, and I thought the driver might not have seen the first green hand-signal I gave a second light from the east window and shouted as the engine passed; and just after this the driver whistled again, four, for the junction. The speed did not at first appear to be increased, but on turning the bend it appeared as if the train was not going to stop at the advanced-signal. I watched the train and was not sure whether or not it would stop at the advanced-signal, but I told the train-booker to call up "Jimmy," that is the Cheetham Hill junction signalman, on the telephone, and tell him that I believed the Ramsbottom train was going to pass my advanced-signal. Cheetham Hill junction made some reply to the lad, but at the time I did not know what. I then lost sight of the Ramsbottom train and knew that it must have passed the advanced-signal, but I did not hear it collide with the bank engine. About 10.50 Cheetham Hill junction rung me up a second time on the telephone saying,—“I believe Bacup train has stopped and has run into them. Stop Bury train.” On receipt of this message I at once threw up all signals against the Bury train, which at this time was somewhere near the up advanced-signal. The Bury train

responded by three sharp whistles given twice over, and stopped at the home-signals. The night was very fine and moonlight. The collision must have occurred between 10.49 and 10.49½. Having had the Bacup train warned on to me at 10.47, and having accepted it at 10.47, I knew that the coal train must be kept at the junction until the Bacup train had passed. When I took off the down advanced-signal for the slow line, I saw that it was off, and showed a good white light, and I saw at the same time the down advanced-signal, for the fast line was showing a red light. My practice is to draw trains nearly to a stand when proceeding on the down lines before lowering the home-signals, to allow the train to draw forward to the starting-signal, but on the up lines I bring the trains to a dead stand because of the falling gradient. I had omitted to notice that No. 47 block signal rule states that a train must be brought to a stand before the home-signal is lowered, to allow it to draw forward to the starting-signal. Rule No. 154A in the rule book stating that a train must be brought quite or nearly to a stand before lowering the home-signal.

13. *Hugh Hughes*, trainbooker; 18 years old, three years' service, all the time a trainbooker.—I have been all my time employed in the Footbridge cabin, where I came on duty at 1.0 p.m. on the 7th December to remain until 11.30 p.m. My duties are to attend to the telephone and to book the trains, and at the time of the collision there was no one in the cabin but Abbott and myself. The London and North-Western coal train was taken on line from Victoria East at 10.34, and the pilot in rear at the same time. At 10.43 the "Be ready" for this train was accepted from Cheetham Hill junction, not at 10.41, and the pilot in rear at the same time. I cannot account for the difference in time of two minutes as regards the "Be ready" being accepted for this train between Cheetham Hill junction and me. The Ramsbottom train was accepted, and "Train on line" given at 10.45, and it arrived at 10.48, and this train was never accepted from Cheetham Hill junction. The entry of 10.48 for this train was made by "Abbott" as I was attending to the telephone at the time, and the remark, "Ran past advanced signal" was also made by "Abbott" for the same reason. For the Bacup train "Be ready" was accepted at 10.47, and "Train on line" at 10.51. I may have made a mistake in the entry of "Train on line" at 10.51, being excited by the telephone message I had received about 10.48. "Abbott" told me to tell Cheetham Hill junction that

he thought the Ramsbottom train was running past the signal. I sent that message. He replied, and said that if it had it would run into the coal train, and that he thought the Bacup train off the branch would go into him. On receiving this message I could not understand it, and I called "Abbott," who had another conversation with Cheetham Hill junction, which I did not hear. I noticed "Abbott" taking off the home-signal for the Ramsbottom train after the driver had whistled four for the junction. "Abbott" also gave a green light from the Manchester side of the cabin, and then another one from the Cheetham Hill side, and he shouted to the driver, "Look out!" On "Abbott" offering the "Be ready" for the Ramsbottom train to Cheetham Hill junction I noticed the advanced signals, they were then both showing red lights. On pulling off the signals for the Bury train, I saw that the advanced-signal for the slow line was lowered, but not that for the fast line. I enter the figures in the book from what I hear on the bells, and not from what "Abbott" tells me. I heard the driver of the Ramsbottom train whistle a second time, four times, for the junction after he had passed the cabin.

14. *Joseph Challinor*, fireman; six years' service, fireman seven weeks.—I was working with Victoria No. 1 pilot engine on the 7th December. We were instructed to assist a London and North-Western coal train up the bank, and we caught the train up at the junction between the fast and slow lines near the Footbridge. On passing from the slow to the fast line I noticed the starting-signal from Footbridge cabin was a very poor light. I remarked to my mate that it was a poor light. I changed my tail lamp before leaving Victoria, and saw it was a good light. It was placed on the buffer-beam on the left-hand side of the tender. We had stood at Cheetham Hill junction about five minutes when we were run into by the Victoria to Ramsbottom passenger train. The passenger train was a few yards from us when I noticed it approaching, and the driver was then shutting off steam. I called out to my mate, and was then thrown into the ditch. I did not hear the driver of the Ramsbottom train whistle before the collision. I was knocked unconscious for a short time, and I was bruised about the body. The driver of the Ramsbottom train shut off steam just as he struck us. I noticed that the side-lights on the London and North-Western brake-van of the coal train were the usual side-lights, which were burning brightly. I have been working constantly with the pilot engine for some time, and have never noticed the advanced starting-signal light so bad as on the night in question.

Conclusion.

These very serious collisions must be principally attributed to Cooper, the driver of the Ramsbottom train, having failed to notice that the down advanced signal for the fast line at Footbridge cabin was (as there is good reason to believe) at danger as he approached and passed it. This signal is one of two (the other being the down advanced signal for the slow line) placed on a bracket on the up side (with a view to better sight) of the four main lines, and is first visible from the foot-plate of an approaching engine at a distance of only about 230 yards, a curve and high retaining wall preventing its being seen further off. The bank engine at the back of the coal train was standing only about 125 yards beyond this down advanced-signal, and could not be seen beyond that distance from the foot-plate of the engine of the Ramsbottom train. Cooper (who maintains that both down advanced-signals were off as he approached them) soon after passing them caught sight of some steam in front of him, and thinking something was wrong, shut off steam and applied the vacuum-brake with full force just before coming into collision with the bank engine, his speed being from 12 to 14 miles an hour. Cooper did not see any light at the back of the bank engine, though he acknowledges there might have been one without his having observed it. Cooper states that he had given one whistle out of the four junction whistles when he caught sight of the steam from the bank engine and did not give the other three. Directly after the collision he missed his fireman, and thinks he must

have jumped off and been caught by the brake-van of the coal train as it was being thrown across the up fast line, as he was afterwards picked up among the débris of this van, which was run into by the engine of the Bacup train.

Cooper is a driver of 14 years' service as such; he had been on duty about $10\frac{1}{4}$ hours when the collision occurred, and would have completed his day's work of 12 hours in another $1\frac{3}{4}$ hours. He was no doubt misled in approaching the Footbridge cabin down advanced-signals by not having been, as he ought to have been, stopped, or nearly stopped, at the down home-signals, and then allowed to draw on to the advanced-signals, a caution signal being shown from the signal cabin as he passed it. Finding the home-signal showing clear when he first came in sight of it, made him, no doubt, conclude that the down advanced-signal would also be right, and prevented his paying that attention to the signalman, as he passed his cabin, and to the advanced-signal, which he ought to have done.

The guard of the Ramsbottom train never saw the down advanced-signal at all, owing, he says, to steam and smoke interfering with his view of it. He corroborates Cooper's evidence with regard to the Footbridge cabin home-signal being clear when he first saw it about 330 yards off.

The fireman of a passenger train on the down slow line also saw the home-signal for the down fast line showing clear when about 330 yards from it, and soon after put to danger.

Abbott, the signalman in the Footbridge cabin, had come on duty at 10 p.m., about three-quarters of an hour before the collisions, to remain till 6 a.m. He is an experienced man of 14 years' service as signalman, of which he has passed six years in the Footbridge cabin. He states that on hearing the four junction whistles from the Ramsbottom train, which he presumed was then near the down home-signals, he lowered the home-signal for the fast line, but still kept the down advanced-signal for this line at danger to cover the coal train, which he knew was standing a short distance beyond it; that he also put a green light outside the west window of the cabin to caution the driver that the advanced-signal was at danger; that the train passed at moderate speed, but as he saw steam coming from the engine, and thought the driver might not have seen the green light shown from the west window, he gave a second green light from the east window and shouted; that soon after this the driver again gave the four junction whistles (this and the previous statement about the whistles is entirely opposed to Cooper's evidence, who declares he had not whistled for the junction until after he had passed the cabin, and then gave only one of the four whistles); that he then watched the train, not being quite sure whether it would stop at the advanced-signal, but suspecting it would not, he sent a telephone message to the Cheetham Hill junction to that effect; that he then lost sight of the train and knew it must have passed the advanced-signal, but was not aware that there had been a collision till informed to that effect by telephone from the junction, telling him to stop a passenger train for Bury, which was approaching on the down slow line, and that he accordingly did so.

A train-booker in the Footbridge cabin more or less corroborate's Abbott's evidence; there appears to have been no mistake made as regards block-signalling between Abbott and the Cheetham Hill junction signalman.

The only blame attaching to Abbott is for not having stopped, or nearly stopped, the Ramsbottom train at the down home-signal before allowing it to proceed forward to the advanced-signal. There are two rules bearing upon this, viz., (1) No. 47 block-signal rule, which states that a train must be brought to a stand before the home-signal is lowered to allow it to draw forward to the starting-signal; and (2) Rule No. 154A of the rule book, in which the words "quite or nearly" are introduced before "to a stand." On the present occasion Abbott obeyed neither one nor the other of these rules, and is to be blamed accordingly.

The two rules should certainly be made identical, No. 47 block-signal rule being the proper one, the other having too much uncertainty about it.

For the second collision between the Bacup train and the brake-van of the coal train, no one appears to be to blame. The first collision occurred just as the middle of the Bacup train was passing the Cheetham Hill junction cabin, the engine being at that time about 200 yards from the spot at which the van had been thrown foul of the up fast line. The driver saw nothing at all of the obstruction, or that anything was amiss with the coal train until his engine came into collision with its brake-van, and carried

it forward from 50 to 55 yards; he thinks the speed was about 20 miles an hour on collision, when he at once put on the vacuum-brake.

The engine and front van of the Bacup train were thrown off the rails with all their wheels.

The Assistant Secretary,
Railway Department, Board of Trade.

I have, &c.,
C. S. HUTCHINSON,
Major-General, R.E.

APPENDIX.

DAMAGE TO ENGINES.

Bank Engine, 423.—Engine buffer-plank broken; angle-iron, leading end of framing broken. Tender framing broken, and tank knocked in. Back horn plate tender sheared off; framing of engine opened out.

Engine, 625, of Bacup train.—Right-hand side bottom of tank and step cut away. Fall plate broken; smoke-box front broken; sand-box broken. All vacuum pipes in front broken off.

Engine, 673, of Ramsbottom train.—Bunker end bulged. Right-hand side tank bulged; smoke-box front knocked in and broken. Angle-iron leading end of framing broken and right-hand sand-box broken.

DAMAGE TO VEHICLES.

No. 158, first-class.—Buffers badly bent, 15s.

No. 1684, third-class.—Headstock damaged and buffers bent, 15s.

No. 941, third-class.—Buffers badly bent, 5s.

No. 307, first-class.—Completely demolished, with the exception of two pairs of wheels, 500*l*.

No. 906, third-class.—One end compartment demolished, two doors, bottom sides, end bar, headstock, three axle-boxes, three bearing-springs, two sole-bars damaged; two buffers broken, two badly bent, two buffer castings, step boards, step irons, quarter lights broken, and brake work and gas fittings damaged, 60*l*.

No. 1440, third-class.—Headstock broken, two axle-boxes broken, footboard broken, four buffers bent, and casings broken, 15*l*.

No. 317, second-class.—Guard's compartment and one passenger compartment demolished, and one damaged inside, two bottom sides, sole-bars, headstocks, and end bars damaged, four bearing-springs, four axle-boxes broken; all brake work, stay rods, gas fittings, extensively damaged, buffer castings and rods broken, and roof damaged, 200*l*.

No. 382, second-class.—Middle bar broken and buffers bent, 2*l*. 10s.

No. 55, van.—Headstock damaged, buffer casting broken, buffers bent, 3*l*.

Printed copies of the above report were sent to the Lancashire and Yorkshire and London and North-Western Railway Companies on the 5th February.

LISTOWELL AND BALLYBUNION RAILWAY.

Board of Trade, (Railway Department,)
1, Whitehall, London, S.W.,
7th December 1889.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 5th October, the result of my enquiry into the circumstances attending the accident which occurred on the 29th September, near Galey bridge, about two miles from Listowell, on the Listowell and Ballybunion Railway.

In this case, as the 6.30 p.m. passenger train from Ballybunion for Listowell was approaching Galey bridge, the whole of the train (which consisted of engine and tender and seven vehicles), with the exception of the engine, tender, and last vehicle, left the line; the engine and tender broke away from the first vehicle, and stopped in a few yards by the automatic application of the Westinghouse brake, with which the engine, tender, and three vehicles were fitted. There was an interval of about four yards between the tender and the first of the seven vehicles, which all remained coupled together, but all except the last one more or less tilted over to the left.

The train was full of passengers, but none, it is stated, have complained of being injured.

The damage to the train consisted in two bogie pivots of the vehicle next the engine, and in two side wheels of two other carriages, being broken.

In the permanent-way about 30 trestles were displaced, and 20 of these had their left levers bent inwards.

Description.

The Listowell and Ballybunion Railway is a single line about nine miles long, opened for traffic in 1888, and is constructed on the Lartigue or one-rail system. The rails,