

LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade, (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.,
24th March 1894.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 26th ultimo, the result of my enquiry into the causes of the collision which occurred on the 22nd ultimo at Thorpes Bridge junction, between Miles Platting and Newton Heath stations, on the Lancashire and Yorkshire Railway.

In this case, during a dense fog, while the 8.20 a.m. passenger train from Manchester for Middleton was standing at Thorpes Bridge junction down home-signals, it was run into at the rear by the 8.35 a.m. passenger train from Manchester for Oldham.

No complaints of injury have been received from passengers, but five permanent-way men travelling as passengers in the brake-van at the rear of the Middleton train were slightly injured, and the guard of that train was badly shaken; the guard of the Oldham train was slightly injured.

The Middleton train consisted of a tank-engine, running chimney in front, and six vehicles, including a brake-van at the tail of the train; it was fitted throughout with the automatic vacuum-brake, and in it the rear three vehicles were damaged and the vacuum-pipe broken.

The Oldham train consisted of a tank-engine, running chimney in front, and seven vehicles, the first and last having brake-compartments, with a guard in the rear one; the train was fitted throughout with the automatic vacuum-brake, and in it the engine had its smoke-box door stove in and the vacuum-pipe broken. One pair of wheels of the vehicle next in front of the van, and the rear wheels of the van of the Middleton train, were knocked off the rails.

Description.

The signal-cabin next on the Manchester side of Thorpes Bridge junction is at Brewery sidings, the distance between it and the junction down home signals being 760 yards; the junction down distant signals are beneath the Brewery sidings down starting-signal, and are 420 yards from the down home-signals; the Brewery sidings down home-signal is 340 yards from the down starting-signal, the Brewery sidings cabin being between these two signals, 240 yards from the starting-signal and 100 yards from the home-signal. The starting-signal is separated from the down main line by a goods line. The line rises slightly towards the junction.

Absolute block working is in force on this part of the line, and in consequence of the dense fog, fog-signalmen were stationed at Thorpes Bridge junction down home-signals, and at Brewery sidings down starting and down home signals, the man stationed at the down starting-signal attending also to the junction down distant-signals.

Evidence.

1. *William Wood*, platelayer.—I joined the service on February 14th, having been previously a farm labourer. On February 22nd I came on duty at 6 a.m. to leave at 5.30 p.m. At 6 a.m. I was appointed to act as fog-signalman at the down starting-signal of Brewery sidings cabin, the down distant-signals below it being those for Thorpes Bridge junction. This was the first time I had been employed as fog-signalman, and my ganger instructed me what to do. I received a lamp, two flags, and some fog-signals, and he told me to place two fog-signals on the rail about 60 yards from the signal-post, and to stand between them and the signal-post where I could see the signals; if the starting-signal and one of the distant-signals were off at the same time, I was to lift the fog-signals; if the starting-signal was off and the distant-signals were on, I was to leave the fog-signals on the line, give the driver a green signal, and tell him to move on cautiously; if none of the

signals were off the fog-signals were to be left on the rails and a red signal to be shown by me. The fog was very thick at 6 a.m., and varied a good deal between that and the time of the collision. I could not see the signals for more than about 20 yards. The starting-signal had been worked all the time I was on duty, and after it had been taken off for a train to pass it had always been put to danger again. When the Middleton train passed me the starting-signal was off for it, but the junction distant-signals were at danger, and I left my fog-signals on the rails, but gave the driver a green flag, and the train passed on. After the train had passed I put down two fresh fog-signals and in about ten minutes the Oldham train came along, none of the signals being off, the starting-signal having been put to danger very soon after the Middleton train had passed. The engine of the Oldham train exploded the fog-signals and I showed the driver a red flag from where I was standing

outside the goods line. I did not shout, but I believe he must have seen the flag. He passed me at a fairish speed with steam on, but I thought he would have stopped at the signal. After the train had gone on without stopping I thought there would be a collision, and soon after heard the noise. In a few minutes the fireman of the Oldham train came back and asked me if the signals had been "on" or "off." I said they had been "on" as they are now, and that I had given them a red flag, which was still in my hand. He said that there had been a collision, and that they had killed the guard of the Middleton train. I then went and informed the signalman of what had occurred. I put down fog-signals on the rails after the Oldham train had passed. The fog had been thicker earlier in the morning than when the collision occurred.

2. *Jeremiah Rothwell*, driver; 26½ years' service, driver 18 years.—I signed on at 4.20 a.m. on February 22nd to sign off at 4 p.m., between which hours there were two periods of an hour each not occupied. These hours occur twice a week, and on other days I sign on at 4 a.m., and off at 2.20 p.m. I was driver of the 8.20 a.m. passenger train, Manchester for Middleton. My engine was a tank-engine running chimney first, and the train consisted of six vehicles, including a brake-van at the tail. The automatic vacuum-brake was fitted throughout. The fog was very thick all the way from Manchester. I stopped at Miles Platting. At Brewery sidings I was pulled up by fog-signals at the home-signal, which was lowered as I was stopping. The next signal I had to pass was the Brewery sidings starting-signal, which was off, and I passed over no fog-signals. I could just see the starting-signal as I passed it, and noticed that both distant-signals were at danger, and I judged therefore I should have to stop at the junction. I saw a green flag waved as I passed the fog-signalman, who was standing close to the signal-post. On approaching Thorpes Bridge junction I ran over fog-signals, and the fog-signalman told me my signal was at danger. At this time the fog was so thick that I could not see more than two carriage lengths (24 yards). I had been standing at the junction from 8.38 a.m. to 8.48 a.m., when the collision occurred without my having heard the coming train. I had my hand on the regulator, to start, the fogman having just shouted out that the home-signal had been taken off. My train was not much moved, but I was thrown across the foot-plate. I was not hurt, nor was the fireman. The vacuum-pipe was broken, and the brake was applied. I do not know whether anyone was back protecting my train. The fogman told me he was going back to do so, but I heard no fog-signals explode. The body of the van was knocked forward on the frame, and the guard, who was inside, was badly hurt. One pair of wheels of the first-class carriage in front of the van was knocked off the rails. The thickness of the fog was about the same at the junction as at Brewery sidings.

3. *James J. Fogg*, fireman; five years' service, five months fireman.—My hours are the same as my driver's, and I agree with his statement, except that I remember passing over fog-signals at Brewery sidings starting-signal. I think the fog was denser at Brewery sidings than at the junction.

4. *William Duffet*, signalman; 13 years' service, eight years signalman.—I have been stationed more than two years at the Brewery sidings cabin, where I came on duty at 6 a.m. on February 22nd for eight hours. I have a train booker, who keeps the register. The fog was very thick when I came on duty, and remained so without much change up to the time of the collision. I had fog-signalmen at my down home, down distant, and down starting signals, and also at the up signals. The down home-signal was off for the Middleton train three minutes before it

passed at 8.38 a.m., but I heard the train explode fog signals which ought to have been taken up. The starting-signal was also off for this train. I did not get "Line clear" for this train in the ordinary course. At 8.40 a.m. I received "Be ready" for the Oldham train. I accepted the signal; the train was given in at 8.42 a.m., and it was stopped at the home-signal for two or three minutes, having arrived there at 8.46 a.m. I then lowered my home-signal to allow it to pass on to the starting signal, which was at danger, and showed a green light as the driver passed, calling out to him that the block was on. There is a goods line between the cabin and the down line. I am sure from his action that the driver saw and heard me. I did not know whether he had stopped at the starting-signal, though I had expected him to do so, and I knew nothing more about the train until fog-signalman Wood came and told me at about 8.55 a.m. that the driver had run past the signal and that there had been a collision. Directly after this I got a telephone message from Thorpes Bridge junction that there had been a collision, and I blocked the line. My object in moving the Oldham train from the home to the starting-signal was to enable, if necessary, any shunting to go on in connection with the sidings. Rules 41A, 48A, 154A, and 275A, and 28 in the block regulations apply to the use of starting or advance signals in the case of fog, and I hold that 154A justified me in sending the Oldham train on to it. I had been using the starting-signal all the morning, but had sent no other train to stand at it than the Oldham train. I had used the signal in the ordinary way. There had been fog-signalmen out during the night. I could not see more than 20 yards along the line.

5. *Thomas Robinson*, driver; 28 years' service, 17 years driver.—I signed "on" on the 22nd February at 3.45 a.m. to sign "off" about 11.45 a.m. I joined the Oldham train due to leave Victoria at 8.35 a.m. My engine was No. 188, a tank-engine, having six coupled wheels with radial axle-boxes on the trailing wheels; it was running chimney first. The train consisted of seven vehicles, the first and last having brake-compartments, with one guard in the rear one. The automatic vacuum-brake applied throughout the train, the working pressure being 20 inches. We stopped at Miles Platting, and were then nearly stopped at the Brewery sidings home-signal, where I had run over fog-signals. I was able to see the home-signal, the fog not being so thick there as further on. I next expected to be stopped at the Brewery sidings starting-signal. On approaching it I ran over two fog-signals and got a green flag from the fog-signalman, which meant that the starting-signal was off, but the distant-signals at danger, and I accordingly went on, prepared to stop at Thorpes Bridge junction. I was approaching the junction at a speed of 15 miles an hour, when two or three yards off I caught sight of the van of the Middleton train. My steam was on at the time, I had just time to shut it off and apply the brake before the collision, the speed being very little reduced. We went forward a very short distance entangled in the van. No wheels in my train were, I believe, off the rails. I was not hurt, nor was the fireman. I ran over no fog-signals nor saw anything of a fog-signalman before striking the van. As I passed the Brewery sidings' cabin I saw the signalman with a green flag, but did not hear him say anything. I did not see the Brewery starting-signal, but was guided by the fog-signalman's green flag. I did not think I was so close to Thorpes Bridge junction, as it turned out I was, when the collision occurred.

6. *Thomas Beeley*, fireman; six years' service, nine months fireman.—I have been all the time with Robinson, and I was with him on February 22nd, when my hours were the same as his. I do not agree with Robinson's evidence as to not stopping at Brewery home-signals, where we were stopped, I

think, for three minutes, and then on passing the cabin I heard the signalman say something which I took to mean we were to draw up to the starting-signal. On approaching it I could not see it, but the driver said that the fog-signalman had called him on. The speed just before collision was 11 to 12 miles an hour. After the collision I told the driver I would go back to Brewery sidings starting-signal. I did so, and saw the fog-signalman there. I asked him whether the starting-signal had been off or on, and he said "on," but I do not remember his saying anything about the flag. He had only a red flag in his hand; the green one was on the ground.

7. *James Walsh*, guard; 11 years' service, three years guard.—I commenced work on February 22nd at 5.15 a.m. to remain till 2.45 p.m. I was guard of the 8.35 a.m. passenger train from Manchester for Oldham. We started from one to two minutes late, the train consisting of seven vehicles. I was in the rear one, a brake-carriage, from which I could apply the automatic-brake. We stopped at Miles Platting and then at Brewery sidings home-signal for three minutes, and left it at 8.46 a.m. I did not see the home-signal, but I supposed the driver was called on by the fog-signalman. I did not hear or see the signalman as I passed the cabin. When we started from the home-signal I thought we were going clear away. I heard no fog-signals explode as we approached the starting-signal, but they may have done so without my hearing them. I saw nothing of the fog-signalman. We stopped a minute at or

near the starting-signal and then we went on, and the next thing was the collision when the speed was 10 or 12 miles an hour. It took me quite unawares, and I was knocked against the partition of the van and injured in the face and neck, but I had not to leave work. The collision occurred at 8.48 p.m. The fog was so thick that I could not see more than a carriage length. I could not see the Brewery sidings starting-signal, the fog being too thick. I had gone back about 100 yards to protect my train (where I placed two fog-signals) when I heard that the train was protected at the Brewery sidings cabin.

8. *William Moss*, platelayer.—I have been in the service about 15 years, and have acted as fogman at Thorpes Bridge junction down home-signals during the last seven years. I was called out to act as fog-signalman at about 12 midnight on February 22nd. The Middleton train came to a stand about 15 or 16 yards in rear of the home-signal, having been stopped by exploding the detonators I had placed upon the rail. I spoke to the fireman, as I was on his side, and drew the train up as near as I could to the home-signal. I took two detonators to get behind the train to protect it. I had just got in rear of the brake-van when I heard the Oldham train coming. I ran on as far as I could, but when I saw the train it was so close upon me that I had not time to get the fog-signals put down. The fog was very dense, and I could not see above 10 yards. There was a good red tail-light and two red side-lights at the rear of the Middleton train.

Conclusion.

The immediate cause of this collision was the failure of Thomas Robinson, the driver of the Oldham train, to attend to the danger hand-signal shown him by the fog-signalman on duty at the Brewery sidings starting-signal. In consequence of the very dense fog which prevailed at the time, the starting-signal itself and the distant-signals of Thorpes Bridge junction, underneath that starting-signal, could not be seen from the line. There is no reason to doubt the fact of these signals being at danger, nor that the fog-signalman on duty acted in accordance with his instructions in placing on the rails two fog-signals about 60 yards from the signal-post, and in showing (from his place about midway between the fog-signals and the signal-post) a red flag to the driver of the Oldham train, thus indicating that both starting and distant signals were at danger. Robinson states that he had not been actually stopped at the Brewery sidings home-signal (the fireman and guard of the train and the signalman on duty in the cabin all agreeing that the train had been stopped at this home-signal from two to three minutes), but went forward past the cabin, seeing the signalman show him a green flag, but not hearing him shout, expecting to be stopped at the starting-signal; that on approaching this signal he ran over two fog-signals and then got a green flag from the fog-signalman; that on receiving this green flag he concluded that the starting-signal was off and the junction distant-signals were at danger, and that he was at liberty to proceed as far as the junction; that he accordingly did so, and was approaching the junction (to which he was closer than he had supposed) at a speed of about 15 miles an hour, with steam on, when at a very short distance ahead he caught sight of the van of the Middleton train, having just time to shut off steam and apply the vacuum-brake before his engine struck it, and drove it forward a short distance. Had Robinson really seen a *green* flag exhibited at the Brewery sidings starting-signal, he would not be so much to blame as he is, but from the fact of his fireman going back immediately after the collision to ask the fog-signalman whether the starting-signal had been "off" or "on" when the train passed it, and from the straightforward way in which fog-signalman Wood gave his evidence, I fear that Robinson either did not see Wood's signal at all, or, if he did see it, neglected to attend to it. Robinson is further to be blamed for approaching the junction in a dense fog at so injudiciously high a speed that he would almost certainly have overrun the junction home-signals had the collision not occurred.

Robinson is an experienced driver of 17 years' service in that capacity. He had come on duty at 3.45 a.m. on the 22nd February for a spell of eight hours, and had therefore been on duty about five hours when the collision occurred.

Beeley, Robinson's fireman, heard the signalman say something which he took to mean that they were to draw up to the starting-signal, as they passed the Brewery sidings cabin. He did not see this signal or the fog-signalman, but says that Robinson told him that the latter had called him on. He estimates the speed just before the collision at 11 to 12 miles an hour.

Beeley's hours of duty were the same as Robinson's.

Walsh, the guard of the train, heard no fog-signals explode at the Brewery sidings starting-signal, saw nothing either of the signal or of the fog-signalman, and was taken unawares by the collision, when the speed was from 10 to 12 miles an hour.

Walsh had come on duty at 5.15 p.m., for a spell of $9\frac{1}{2}$ hours, and had therefore been on duty $3\frac{1}{2}$ hours when the collision occurred.

The Middleton train had been standing at the junction home-signals about 10 minutes, viz., from 8.38 to 8.48 a.m., when, without any warning, and just as the driver was about to start the train (having been informed by fog-signalman Moss, on duty at the junction, that his signal was lowered), the collision took place. The driver stated that he had heard no fog-signal exploded before the collision, though Moss had told him he was going back to protect his train.

The guard of the Middleton train was in his van at the rear of the train when the collision occurred. He was not sufficiently well to be examined when I held the enquiry.

Fog-signalman Moss lost unnecessary time in going back to protect the Middleton train, as, though it had been standing 10 minutes at the junction, he had got back only as far as the rear of it when he heard the Oldham train approaching, and had no time to put down any fog-signals before the collision. He must therefore be blamed for his dilatoriness, but for which he might have got back and have put down fog-signals at a sufficient distance to warn the driver of the Oldham train, time enough for him to avoid or greatly minimise the effects of the collision.

Moss had come on duty at midnight, and had therefore been engaged about $8\frac{3}{4}$ hours when the collision occurred.

Signalman Duffet, on duty in Brewery sidings cabin, states that the Middleton train passed at 8.38 a.m., and that he stopped the Oldham train at the home-signal at 8.46 a.m., when he allowed it to proceed to the starting-signal, showing the driver a green light and shouting to him that the block was on as he passed the cabin; that he supposed the train had stopped at the starting-signal until he was informed by fog-signalman Wood at 8.55 a.m. that the train had run past the starting-signal and that there had been a collision.

Duffet says that he had allowed the Oldham train to proceed from the home to the starting-signal in case of any shunting having to go on in connection with the sidings, this not being practicable with the train standing at the home-signal. He thought that the following portion of Rule 154A, that after a train has been brought to a stand at a home-signal, this may be lowered, and "in foggy weather or falling snow the engine-driver must, when practicable, be verbally informed that he is only to draw forward towards the starting-signal"; justified him in acting as he did; the driver of the train being enjoined to go no further than necessary to leave the last vehicle well clear of the points and crossings and within sight of the signalman.

Part of No. 28 of the Block Telegraph General Regulations is to the same effect, viz., that "in foggy weather and snowstorms, passenger trains must not be drawn forward past the starting-signal (in this case the home-signal) towards the advanced starting-signal except for station duties and shunting purposes," the driver as before going no further than necessary. Rule 48A also applies to the present case; it states that in foggy weather or during falling snow a train must not be drawn past a signal-box towards the starting-signal for the purpose of waiting "Line clear" further than necessary to get it under cover of the home-signal, when the starting-signal is at such a distance from the box that the train when standing at it would be out of sight of the signalman.

Now, as there was no shunting waiting to be performed while the Oldham train was standing at the Brewery sidings home-signal, there was no actual need to bring the train forward till "Line clear" had been received from Thorpes Bridge junction; but if, for the sake of getting the train under the protection of the home-signal, Duffet, as allowed by Rule 48A, drew it forward sufficiently to do this, he made a mistake, in my opinion, in showing the driver a green light, and in not stopping him opposite the cabin with a red light and telling him why he had called him on.

Duffet has been a signalman eight years, has been stationed two years at Brewery sidings cabin, where he had come on duty on the 22nd ultimo at 6 a.m. for eight hours, and had therefore been engaged about $2\frac{3}{4}$ hours when the collision occurred.

Platelayer Wood, acting as fog-signalman at Brewery sidings down starting-signal—the first time he had performed this duty—appears to have acted properly as regards the signalling of the Middleton and Oldham trains. He had been on duty about $2\frac{3}{4}$ hours at the time of the collision.

The Assistant Secretary,
Railway Department, Board of Trade.

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

Printed copies of the above Report were sent to the Company on the 11th April.

LONDON AND NORTH-WESTERN RAILWAY.

Board of Trade, (Railway Department,)
8, Richmond Terrace, Whitehall, London, S.W.,
March 12th, 1894.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 26th ultimo, the result of my enquiry into the collision that occurred on the 22nd idem at Wallsall station on the London and North-Western Railway.

On this occasion, while the 9.30 a.m. train from Wolverhampton to Walsall was standing on the down slow line at the home-signals of Bridgeman Place signal-cabin, outside Walsall station, it was run into in rear by the 9.25 a.m. train from Birmingham, which had been allowed to enter the section while it was still occupied by the former train.

Twelve passengers are reported to have complained to the Company of shock and minor injuries, and guard Parsons of the Birmingham train was severely bruised on the hip, neck, and shoulder.

The Wolverhampton train consisted of a four wheels coupled tank-engine, running bunker first, and six close coupled vehicles, having a brake compartment at each end. The engine and train were fitted throughout with the automatic vacuum-brake. The engine had one buffer-casting broken, and all the coaches composing the train were more or less damaged. (For details, see Appendix.) The front and rear brake-vehicles had each their leading wheels off the rails, and the last vehicle but one had its two rear wheels off the rails.

The Birmingham train consisted of six wheels coupled tank-engine, running bunker first, and six close coupled vehicles, similar to those of the other train, and it was properly fitted with the automatic vacuum-brake. The engine had the lamp-sockets and buffer-plank broken, and no damage was done to the train.

The permanent-way received no injury beyond the breaking of one chair.

Description.

This collision occurred on the down slow line about 300 yards outside Walsall station. The Wolverhampton train was standing at the down home (slow line) signals, which are situated 241 yards from the end of the platforms, and 164 yards from Walsall No. 2 (Bridgeman Place) signal-cabin, from which they are worked. There is another signal-cabin, Walsall No. 1 (also known as Bodley's), 566 yards outside Walsall No. 2 cabin, and there are four running-lines, viz., up and down slow and up and down fast, between the two cabins, besides a siding line on either side of the four main lines. The traffic is worked on the absolute block system between the two signal-cabins.

There was a dense fog at the time of the mishap, and it was not possible for the signalman at Bridgeman Place cabin to see his down home-signals or any train that might be standing at them.

From Bridgeman Place eastwards, through the station as far as the Park Street cabin, the lines are worked on the permissive block system, this arrangement having been sanctioned by the Board of Trade.

Bridgeman Place cabin is a very busy one, there being in it 47 levers in use, besides block instruments for the up and down slow and up and down fast lines to and from Bodleys, six tell-tale instruments for the lines through the station, six electric route