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BoT Report into Accident at
Leyland.

(9 Pages).

LANCASHIRE AND YORKSHIRE AND LONDON AND NORTH-WESTERN
JOINT RAILWAYS.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.,
July 26th, 1898.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with the Order of the 3rd ult., the result of my enquiry into the circumstances attending an accident which occurred at 8.54 p.m. on the 2nd June, at Leyland Station, on the Lancashire and Yorkshire and London and North Western Joint Railway.

In this case, while a special, excursion, train (No. 2) was standing on the up fast line, outside the home signal at the north end of Leyland Station, it was run into in rear by another special, excursion, train (No. 14).

Two passengers were, I regret to say, killed on the spot, and 37 others were injured—some of them very seriously—The fireman of No. 14 special was also somewhat injured by a fall when jumping off his engine just before the collision, and the rear guard sustained injury to his arm.

No. 2 special, from Blackpool to Manchester, consisted of engine and tender, and 16 vehicles, the last vehicle of the train being a third-class brake carriage. This train was driven forward about 20 yards by the force of the collision, the ends of the 13th and 14th vehicles were telescoped and the two rear carriages were wrecked; the four front wheels of the leading carriage were also derailed.

No. 14 special, from Morecambe to Radcliffe *viâ* Manchester, consisted of engine and tender and 14 vehicles, fitted throughout with the automatic vacuum brake. No wheels of the train would appear to have left the rails, and the damage done to the rolling stock was comparatively unimportant; full details are, however, given in an Appendix.

Both were Lancashire and Yorkshire Company's trains.

Description.

This sad accident occurred about $3\frac{3}{4}$ miles south of Preston on what was formerly known as the North Union Railway, now the joint property of the two Railway Companies mentioned above, and which forms part of the North Western Company's main line to Carlisle and Scotland. There are four passenger lines, running nearly due North and South between Preston and Euxton Junction, $5\frac{1}{4}$ miles, where the Lancashire and Yorkshire line to Bolton and Manchester diverges in a south-easterly direction: the line on the extreme east of the railway is known as the up fast, then down fast, up slow, and down slow on the west side, but they are all suitable and used for fast running when necessary.

From Farington Station, about $1\frac{1}{2}$ miles north of Leyland, the line rises up to and through the latter place on a gradient of 1 in 330; the line is quite straight for nearly a mile north of the point of collision, but the greater part of No. 2 special train was standing on a reverse curve of 55 and 100 chains radius.

The evidence deals with various incidents of the signalling, and running, of two Lancashire and Yorkshire trains, on the up fast line, as well as of a North Western train, on the up slow line, between Farington and Leyland Stations; the following distances should be noted from Leyland signal cabin northwards:—

	Miles.	Yards.
To the point of collision	0	163
To No. 72 over-line bridge (generally known as Bashall's bridge).	0	326
To Bashall's siding cabin	0	561
To Bashall, up fast, home signal and Leyland distant signal.	0	754
To No. 73 over-line bridge	0	864 about
To Farington No. 1 cabin, up fast, starting signal	0	1,551
To Farington No. 1 signal cabin	1	122
To Farington No. 2 signal cabin	1	567

As regards the cabins: Leyland cabin is about 165 yards north of the station, between the fast and the slow lines; Bashall's siding and Farington No. 1 cabins are close to and on the west, or proper down, side of the railway; Farington No. 2 cabin is just south of the south end of Farington Station. Absolute block working is in force between these cabins.

Bashall's siding home signals for the two up lines are on separate posts, close together on the east side of the railway and outside a parallel siding; each post also carries the up distant signal for Leyland, underneath the corresponding home signal of the siding cabin. The up starting signals of Farington No. 1 cabin are differently arranged, the signal for the fast line being on the east and for the slow line on the west side of the railway; each of these signals has underneath it the distant signal of the cabin ahead (Bashall's siding cabin). As no question arises in this case having reference to signals other than the above, it is unnecessary to go at any greater length into the signalling of the railway—which, I may add, is carried out, and maintained, by the North Western Company—but I should say that the fast and slow line signals are clearly distinguished from each other, by the latter having rings on the semaphore arms.

The following details of No. 14 special train may be of interest:—The engine was a six-wheels-coupled, tender engine, running chimney in front, and with brake blocks on all 12 wheels of engine and tender. The total weight being 68 tons 5 cwt. 2 qrs., and the length over buffers 46 feet. The passenger vehicles were marshalled as shown below:—

Description of Vehicle.	No. of Wheels.	No. of Braked Wheels.
Third-class brake van, No. 608	6	4
" No. 651	4	4
" " 1061	4	4
" " 1731	4	4
" " 1862	4	4
" " 177	4	4
" " 48	4	4
" " 311	4	4
First-class " 107	4	4
Third-class " 1810	6	4
" " 1530	6	4
" " 1762	6	4
" " 630	6	4
Third-class brake van, No. 1895	6	4

The total weight of the engine and train was 213 tons 4 cwt., 83 per cent. of which, approximately, was carried on braked wheels.

The total length of No. 2 special, over buffers, was 550 feet.

Evidence.

John Lee states: I have been 19 years in the London and North Western Railway service, and a driver for 7 years. On the 2nd inst. I came on duty at 8 a.m. I booked off at Blackpool at 12 noon, came on duty again at 8 p.m., and I booked off at 8 a.m. the following morning at Llandudno. I left Blackpool at 8.8 p.m. for Manchester. I was not timed at Preston, but my train was running well to time. Just on the Leyland side of Farington Station we overtook a train on the up fast line. We were running on the up slow. I was probably going at a speed of 25 to 30 miles an hour, and I am sure I passed the other train before we got to Bashall Sidings. After we once caught up that train I never looked back, and cannot therefore say how far behind my engine the other engine would be when we reached the home signals of Bashall Sidings Cabin. At that cabin the home signal was off for my line, and also Leyland distant, which is underneath the home signal. I drive from the left-hand side of the engine, but I did not notice the position of

the fast line signals at Bashall, and I can give no information on that point. I did not see the train on the fast line again. As we approached Leyland Station the home signal was off for me. I did not notice the fast line signal, but a train was standing at it. I whistled as I passed Leyland Cabin. I was standing in the shed at Ordsall Lane, Manchester, from about midnight until 2.30 a.m. I have regularly driven trains on the up fast line between Preston and Leyland, and I am well acquainted with the signals. There is a better view of Bashall up home signals when running on the slow line than when on the fast line, but I have never seen any reason to complain of the view from the latter, nor have I heard of any complaints being made by other drivers.

James Hall states: I have been eight years in the London and North Western Railway service, four years a fireman. On June 2nd I was driving for driver Lee, and my hours of work were the

same as his. I ride on the right-hand side of the engine, and I did not notice any train on the up fast line between Preston and Leyland on the above date, nor did I see the up fast line signals.

Richard Briggs states: I have been two-and-a-half years in the Joint Companies' service, 12 months a signalman. On June 2nd I came on duty at 8 p.m. in Farington No. 1 box to work until 6 a.m. on the 3rd; this box is only open during the night. A London and North Western train passed my box on the up slow line at 8.50, having been accepted by Bashall at 8.43; the train was cleared back to me at 8.53. At 8.47 Lancashire and Yorkshire special No. 2 passed my box, and was cleared by Bashall at 8.49. No. 14 Lancashire and Yorkshire special was offered to me at 8.47 and accepted by me at once. I offered it forward and got it accepted at 8.49. The train passed my box at 8.50, all my signals being off. I heard nothing regarding that train from the box ahead until after the accident, when the signalman told me it had run into No. 2 special. He said his signals were "on." I cannot say what the positions of Bashall Sidings up distant signals were when the trains passed on the two up lines, but both were at danger after I had lowered my starting signals—about a minute before No. 14 train passed. I have no recollection as regards No. 2 special. As the two trains passed my cabin, the Lancashire and Yorkshire train (No. 14) would be about two carriage lengths behind the London and North Western train. The speed of the two trains at that time would be about the same. Between 8.20 and 8.50 there were 17 trains on the four lines.

Richard Robinson states: I have been 16 years in railway service, and a signalman of the Joint Companies for seven years, the last four years of which I have been regularly employed in Bashall Sidings cabin. On June 2nd I came on duty at 2 p.m. to work until 10 p.m. I had done the same tour of duty the previous day. A London and North Western Railway train on the up slow line was offered to, and accepted by, me at 8.44; it was given "on line" to me at 8.49; it was accepted by Leyland at 8.44. The train passed my cabin at 8.53 and was cleared from Leyland at 8.54. My home and distant signals were both off for that train. The up slow home signal is on the up side of the up fast line, with the corresponding signal for the fast line alongside it. No. 2 Lancashire and Yorkshire special on the up fast was offered to, and accepted by, me at 8.44. I offered it to Leyland at 8.45 and it was accepted at the same time. I received the "train entering section" signal from Farington at 8.45, and the train passed my box at 8.49. It was not cleared back to me until after the accident. When I first accepted No. 2 special from Farington No. 1 box, the line ahead of me was still occupied. The latter train was pulling up as it passed me, the distant signal for Leyland being "on." The London and North Western train would pass at a speed of 25 to 30 miles an hour. No. 14 Lancashire and Yorkshire special was offered me at 8.49—accepted at 8.49; No. 2 special being still in the section in front, I did not offer No. 14 forward. I had put the up fast line signal back to danger as soon as No. 2 passed, and I did not lower it again before the accident. I am sure the arm went properly back to the danger position. My up fast home signal is worked by No. 2 lever and the up slow home signal by No. 4 lever. Trains passed my box on the down slow line at 8.44 and

on the down fast at 8.46. No other down train until after the accident. I had no work to do in connection with the sidings about that time. I was quite free to give my whole attention to the three up trains referred to above. Between 8.20 and 8.50 15 trains in all passed my cabin. My box is on the down side of the line. It was still daylight at 8.50, and a fine evening. I could see the home signal arms quite clearly at that time. No. 14 Lancashire and Yorkshire special passed my cabin at 8.54, at a speed of about 20 miles an hour, when the engine of the London and North Western train on the slow line would be about 300 yards past the cabin. Before the special got to my home signals I thought it was going too fast to stop. I was then just putting back to danger the slow line home signal. I could not say quite for certain whether that signal would be "on" before the driver of the Lancashire and Yorkshire train arrived at the home signals, but I think it must have been. My red flag was just in front of me, on a hook, as I stood at the frame. I got to the window with my flag as No. 14 train was passing the home signal. I waved it violently. As the train passed me, I did not see the driver, who was on the far side of the engine, but I saw the fireman; he was leaning over the rail and appeared to be looking down at the road. I continued to wave the whole length of the train. I did not see the front guard, but I managed to attract the attention of the rear guard; he held up his hand to acknowledge my signal and then went inside the brake at once. He had just passed the cabin. I had noticed the tail lamp of No. 2 special, but I do not know whether it was alight or not. Immediately after putting my slow line signal to danger, I gave the bell signal to Leyland to intimate that a train was running away on the right line (up fast line), and it was duly acknowledged. It was after doing this that I got my flag. I sent the signal before I received "train out of section" for the London and North Western train. There are 17 levers in the box. The wind was blowing from the west, so that steam, smoke, &c., from the London and North Western engine would blow across the fast line. Absolute block working is in force between all the cabins. There is a rule that my up distant signal is not to be lowered so long as the distant signal for Leyland is at danger.

John Clitheroe states: I have been 15½ years in the Joint Companies' service, all the time a signalman. For the last 10 months I have been employed in Leyland Station cabin. On June 2nd I came on duty at 2 p.m. to work until 10 p.m. A London and North Western train on the up slow line was accepted by me at 8.45; the "train entering section" signal was given me at 8.50 and it passed my cabin at 8.54. The "entering section" signal would be given to me from Bashall sidings at the time it was received by the man there from the box in rear. The speed of the train when passing me would be about 40 miles an hour. No. 2 Lancashire and Yorkshire special was accepted by me on the up fast at 8.45. I received the "train entering section" signal at 8.46 and it arrived at 8.50. At that time special No. 23, which had passed me at 8.45, was still occupying the section ahead. Euxton Coal Siding cabin is the next cabin ahead of mine—distant 1 mile 167 yards. I generally get the "clear" signal in about 2 minutes if the road is not blocked. An up train had passed on the slow line at 8.44, and also one on the up fast at 8.40, both being for the Lancashire and Yorkshire line at Euxton. No. 2 special came to a stand at my up fast home signal, which was at danger. It was a very clear

evening, and I could see beyond Bashall Sidings box at that time. At 8.54 I received a bell signal from Bashall sidings to intimate that a train was running away on the right road. I acknowledged it before the collision occurred; I could do nothing—it practically occurred at once. I think I received that signal before I gave "train out of section" for the London and North Western train; when I had acknowledged the running-away signal, I turned round to see what was coming, and I then saw No. 14 special, by which time the London and North Western train had certainly passed. It was not until 8.57 that the up fast line was cleared from Euxton Coal Siding cabin. There is a starting signal at the south end of Leyland Station. The station-master's instructions are that non-stopping trains are to wait at the home signal, and not to be brought into the station; this has always been the rule since I have been at Leyland.

Frederick Woolley states: I have been 11 years in the London and North Western Company's service, 5 years a guard. On the evening of June 2nd we left Blackpool at 8.8 p.m. for Manchester, and I was guard in charge of the train. There were 13 vehicles behind the engine, and I rode in the rear van. Just after passing through Farington Station we came abreast of a Lancashire and Yorkshire train on the up fast line. I did not see the signals at Bashall, as I was writing at the time—making out my journal; I cannot say exactly where the Lancashire and Yorkshire train was, but I think we were past it.

William Schofield states: I have been 14 years in the Lancashire and Yorkshire Company's service, and a passenger guard nearly four years. On June 2nd I came on duty at 3.30 a.m., left off work at Blackpool at 7.30 a.m., resumed work (at Blackpool) at 6 p.m., and I was due to leave work finally about 10.30 p.m. On leaving Blackpool on the return journey my train (No. 2 special) was composed as follows: engine and tender, 3rd class brake, 3rd class, 1st class, 3rd saloon, 2nd class, nine 3rd class, composite, 3rd class brake. I think the foregoing is correct, but I only made the entries in my book the next day. I had made entries previously, but my book was in the van, and when returned to me after the accident two pages were missing. We arrived at Leyland about 8.53, and the accident happened after we had stood there about four minutes. I noticed the London and North-Western train pass on the up slow, as I was looking out of my van on the right-hand side of the train. It was running at a very fair speed. When the London and North Western train was well clear I saw a train approaching in rear of us, the engine being then well under Bashall's Bridge. I got out of my van on the six-foot side, and, holding my hands up, went towards it; I had probably gone not more than 25 yards when the engine passed me. I could not say whether steam had been shut off nor whether the brakes were on. I did not see either of the engine-men until just as the collision occurred, when the fireman seemed to tumble off the engine. I should think the Lancashire and Yorkshire train would be going at a speed of 20 miles an hour. I saw Bashall Sidings home signal off for us, but I did not look back, and therefore do not know when it was put back to danger. After the collision I went first to the rear end of the second train and then I went to the signal cabin to tell the signalman to block all lines, as the passengers were getting out on the railway. Our brakes were not on. There was steam from the London and North Western train

under the bridge when I first saw No. 14 special approaching.

Thomas Beresford states: I have been 30 years in the Lancashire and Yorkshire Company's service, and a goods guard 28 years, almost the whole of my time as guard. I have been employed with passenger trains during the excursion seasons. On the 2nd June I signed on duty at Castleton about 2 a.m., and went to Tottington Junction by goods train, where the coaches were stabled for No. 14 excursion train; we then went empty to Radcliffe New Station, and we left there at 5.40 a.m. for Morecambe. I signed off at Preston at 9 a.m., other men taking the train on. I signed on again at Preston at 7.30 p.m., and I took over the return train (No. 14) on its arrival there, leaving for Radcliffe *via* Manchester about 8.46. I was not the guard in charge of the train. I rode in the front van (3rd class brake carriage). Approaching Farington I saw the distant signal "off," but I did not notice either the starting signal of Farington No. 1 nor Bashall Sidings distant, which is underneath it. Approaching Bashall I saw the Leyland distant signal at danger, but I cannot say what was the position of the home signal. After passing the box some distance I heard someone shouting, and I saw the signal man with a red flag. I went to the brake and applied it. I cannot say exactly what was the amount of vacuum available. I put the brake down as far as possible. By the time I got the brake on we were close to the train in front of us. I was knocked up against the side of the van by the collision, but I was not hurt.

James Edward Duckworth states: I have been 14 years in the Lancashire and Yorkshire Company's service, and a passenger guard for two years past. On the 2nd June I booked on duty at 4.15 a.m., booking off at 9 a.m. at Preston; I came on duty again at 7.30 p.m. and was due to finish work about 11 p.m. At Preston I took over No. 14 return excursion, composed as follows: Engine and tender, 3rd brake, 3rd, 3rd saloon, 3rd, 3rd saloon, three 3rd class, first class, four 3rd class, 3rd class brake—14 in all. We left Preston at 8.46, 16 minutes late. Between Farington and Leyland I was making out my journal, and I do not know anything about the signals. Just before we got to Bashall Sidings cabin I first saw the London and North Western train on the slow line, having seen nothing of the latter at Farington. Passing the cabin, the front portion of our train was, I think, overlapping the tail of the London and North Western train. Then I saw the signalman waving his flag violently, and at that time the tail of the London and North Western train had not cleared the cabin. I gave the signalman a signal to show I knew what he meant just as I got level with him, and I put the vacuum brake on immediately after we passed the cabin; my driver had steam on at the time; we had 20 inches of vacuum. I was still holding the vacuum valve when the collision occurred. I was knocked into the corner of the van, and strained my arm. The speed of our train would be about 20 miles an hour when we struck. I felt the driver jerking the train ahead against the brake when I applied it; that is why I say steam was "on." The wheels skidded.

Alfred Hartley states: I have been 11 years in the Lancashire and Yorkshire Company's service, and a fireman for 5½ years. On the 2nd June I was firing for driver Whyte, and my hours of work were the same as his. We took no rest at Morecambe. Coming through Farington Station I was firing. Approaching Bashall sidings cabin I

was looking out ahead on the right-hand side of the engine. There was a London and North-Western train on the slow line, which I had first seen somewhere about Farington Station. It was then coming up behind us on the other line, and it was not quite clear of us as we passed Bashall cabin. At Bashall the home-signals are on the left-hand side. I noticed that our home-signal was "off," but the distant was "on"; I did not see the signals of the slow line, although they are alongside the fast line signals. I had noticed the starting-signal at Farington No. 1 cabin and Bashall distant underneath it, both of which were "off." I do not remember whether the signals of the two up lines are alongside one another there or not. My mate shut off steam at Leyland distant-signal. I could not see the signalman as I passed that cabin, owing to the steam and smoke flying over the slow line from the London and North-Western train. We were within four or five carriage lengths of No. 2 special when I first saw it. I opened the sand valves and jumped off, being slightly hurt on the shoulder. My mate applied the brakes a little at Bashall and he applied them fully when we saw the train in front of us. Just before the collision I know we had 20 inches of vacuum. The London and North-Western train was about two carriage lengths ahead of us when passing Bashall cabin home-signals. I know all the signals well.

Joseph Whyte states: I have been 23 years in the Lancashire and Yorkshire Company's service and 10 years a driver. On June 2nd I came on duty at 3.45 a.m. I booked off at Morecambe at 11.15, having arrived there at 8.50, and I booked on again at 6.40 p.m., to start at 7.40. My engine,

No. 521, is a six-wheels-coupled goods engine with six-wheeled tender, fitted with the automatic brake working blocks on all 12 wheels. All signals were off for me as I ran through Farington. The starting-signal of Farington No. 1 and the distant for Bashall sidings underneath the former were both off for me. I was running on the fast line. I saw the slow line signals also, which are on the right-hand side of the railway; they were both off. The engine of the London and North-Western train passed my engine somewhere near Bashall sidings cabin; before this I could see the signals at Bashall, where the signals for both lines are on the left-hand side of the railway. My signals are on the left of the slow line signals. The home-signal was "off" for us, but the distant for Leyland was "on." Both signals for the slow line were "off." The tail end of the London and North-Western train was just drawing clear of us as we passed Bashall cabin. I did not see the signalman. I had shut off steam passing the signals. The speed passing the cabin would be scarcely 30 miles an hour. There is a bridge over the railway 235 yards south of the cabin, and owing to smoke and steam under the bridge from the London and North-Western engine I could not see No 2 special train standing on my line. I could not see the signals at Leyland. I should be going about 15 or 20 miles an hour when I saw the train ahead. I put my vacuum-brake on, as soon as possible, and reversed the engine. There was no "skidding" of the engine wheels. I did not feel the brakes go on until I applied them myself. I know we had 20 inches of vacuum just before I applied the brakes at the distant-signal. I had signed off duty on June 1st at 1.25 p.m.

Notes of additional evidence taken at the Coroner's Inquest.

W. McCall, a platelayer, states: I was between No. 73 bridge and Bashall Sidings cabin and I saw the London and North-Western train and No. 14 special pass; the former would be about half the train's length in front of the latter, that is to say, the rear end of the London and North-Western train would be half-way down No. 14 train. Bashall cabin home signals were just in front of me, but I did not notice their position.

W. Maudsley, driver of No. 2 special, states: I left Blackpool about 8.4 p.m. on the return journey. Approaching Farington No. 1 cabin all signals were off for me, but Bashall Sidings distant signal (under Farington No. 1 starter) was at danger. I found Bashall Sidings home signal "off," but Leyland distant signal was "on." At Leyland, the home signal was at danger and I stopped just short of the signal post; the home signal remained "on" up to the time of the collision. I had no warning whatever prior to the accident; my engine was driven forward by the shock about one-and-a-half engine lengths, neither my mate nor I being hurt in any way. I have driven regularly on the up fast line. I did not hear the London and North-Western train whistle, excepting as it passed through the station.

W. Bennett, aged 17, son of a farmer, working for two years past alongside the railway, states: At about 8.55 p.m., on the day of the accident, I was standing on the footpath by the side of the railway near Bashall Sidings cabin, about 20 yards north of the cabin. I saw the London and North-Western train about half-a-mile away coming up on the second line from me; I also saw a

Lancashire and Yorkshire special coming towards me at the same time. I looked at the signals, which were about 100 yards from me; the two ringed arms were "off," and those without rings were at danger. I can say without the slightest doubt that the latter were at danger when the Lancashire and Yorkshire train passed. I saw the signalman waving a red flag, and I think this would be before the train got to the signals; the London and North-Western train would then be clear of the cabin. I saw one man on the Lancashire and Yorkshire train as it passed, and he seemed to be looking down on the permanent way. I heard no whistling from the London and North-Western train. The Lancashire and Yorkshire driver had steam on as he passed me. I heard shouting from the cabin.

C. Shuttlebottom, a labourer in rubber works, states: About 8.50 p.m. on the day of the accident, I was standing on Bashall's bridge (No. 72). I saw a train standing on the up fast line at Leyland cabin, the rear of the train being 120 to 150 yards from me. I noticed the London and North-Western train coming on the up slow line, about 150 yards away on the Preston side of the bridge. I then also saw another train coming on the up fast line which was passing the cabin with full steam on, and the signalman was waving a red flag. The signals without rings were straight out, but those with rings were down; the train had passed the signals. I heard two sharp whistles from the London and North-Western train when it got to Leyland. There was a good deal of smoke from that train blowing over the left-hand side of the line. The speed of the Lancashire and Yorkshire train was reduced between the cabin

and the bridge, but steam remained on until the collision took place. I saw the driver of the train but I was watching the fireman the most, who was stooping down firing when the train passed me; the fire-door was open. The two trains were about 150 yards apart, clear, passing me. I had not noticed the signals until I saw the flag waved from the cabin.

E. Snape, a watchman at Farington factory, states: I was standing at the corner of Bashall's bridge, on the east side of the railway, looking

towards Leyland Station. I saw a train standing at Leyland cabin and I saw the London and North-Western train when it got near to the station; then I heard another train coming at a good speed—certainly in steam—on the same rails as the standing train. I noticed the driver leaning against the left-hand side of the engine, looking to the right; the fireman seemed to be in a stooping position. There was not much smoke or steam about. I cannot say anything about the brakes. I think steam was shut off just as the collision occurred.

Conclusion.

The cause of this fatal accident evidently can only be either that the driver of No. 14 special ran past the signals of Bashall sidings cabin, when at danger, or that those signals were improperly lowered before the signalman had received the "train out of section" signal from Leyland for the preceding train (No. 2 special). Of the many witnesses examined at the Board of Trade enquiry, and at the Coroner's inquest, only four say they actually saw the signals in question as No. 14 train was approaching them, viz., the driver and fireman, the signalman, and a youth named Bennett—the two former say positively the signals were "off" for them, the two latter are equally certain they were at danger. The driver and signalman are men who have hitherto borne good characters, they are both men of considerable experience, they gave their evidence clearly and well, and they have throughout adhered to their story as originally told. The witness Bennett is the son of a farmer, who has worked for some time past in the immediate neighbourhood of the railway, and his evidence appeared to me at the Coroner's inquest to place the matter beyond doubt; he has, however, since admitted that he has been in the habit of visiting the cabin, and that he did so on the night of the accident—being there only a few moments before the accident—and, under the circumstances, I cannot attach any greater value to his evidence than to that of the fireman in support of his driver. It is, therefore, necessary to look into all the attendant circumstances, as detailed in the evidence recorded above, in order to determine on which side the truth lies.

No. 2 special arrived at Leyland at 8.50 p.m., where it was pulled up at the home-signal of the up fast line, at the north end of the station, the section ahead being blocked; at 8.54, a London and North-Western train ran through the station on the up slow line, and just as it passed the cabin the signalman was advised from the cabin in rear that a train was running away on the up fast line—on which No. 2 special was still standing. He could do nothing to avert the collision, which occurred almost immediately with the fatal results already detailed. The distance between Leyland and Bashall's sidings cabins is only 560 yards, and from the tail end of No. 2 special to the latter cabin would be scarcely 400 yards. The rear guard of No. 2 special saw No. 14 approaching as it passed under No. 72 overbridge, about 160 yards north of him; he got out of his brake and went a few yards towards the other train, holding up his hands; he estimates the speed of No. 14 train at 20 miles an hour, but he is unable to give any other information bearing very directly upon the points at issue.

Turning to the running of No. 14 train, it would appear that soon after passing through Farington Station, nearly $1\frac{1}{2}$ miles north of Leyland, it was overtaken by a London and North-Western train on the parallel up line—the former being on the up fast, on the east side of the railway, and the latter on the up slow. According to the register kept in Farington No. 1 cabin, three-quarters of a mile north of the point of collision, the two trains passed simultaneously, but the signalman thinks the North-Western train was then a little ahead of the other. About 650 yards north of the point of collision the two trains passed platelayer McCall, and he says the rear end of the North-Western train would then be about the centre of No. 14; and it is only right to point out that his evidence agrees more nearly in this respect with that of the driver and rear guard of No. 14 train than it seems to do with the statements made by signalman Robinson and the youth Bennett. Where McCall stood, he was not more than 250 yards from, and north of, Bashall's sidings cabin.

From this point, however, the North-Western train must have gained somewhat rapidly on the other, for when the collision occurred the clear interval between the two trains, on the fast and slow lines, cannot certainly have been less than 200 or 300 yards.

As regards the speed at which these trains were running, it is difficult to form any very accurate estimate; for although the times recorded in the train register books of Farington No. 1, Bashall sidings and Leyland cabins agree wonderfully well, they are not of much value in determining the speed owing to the short distances between the cabins. I am, however, satisfied that the speed was moderate, and that the trains were not racing in the ordinary meaning of the word, although it is quite possible they were intentionally kept close together for some time.

The driver of No. 14 special and his fireman state that steam and smoke from the North-Western train interfered with their view, which would doubtless be the case at times and to some extent, but they do not allege that they had any difficulty in seeing their signals. As bearing upon this accident only two sets of signals have to be considered, viz., the up starting signals of Farington No. 1 cabin, with Bashall's siding distant signals underneath, and the up home signals of Bashall's siding, with Leyland distant signals underneath. The signals at Farington are on opposite sides of the railway, the fast line signals being on the east and the slow line signals on the west side; any confusion between the two should be quite impossible, especially in the case of a driver travelling on the fast line, which is on the extreme east side of the railway with its signals, and only its own signals, close alongside on the usual left-hand side. There are two points to be noted here telling, more or less, against the driver's contention that Bashall sidings distant signal was off for him, as well as Farington No. 1 starting signal.

(1.) Signalman Robinson (Bashall's sidings) says he is not allowed to lower his up distant signals unless Leyland Station distant signals are "off"—the section ahead of his cabin being a short one—and it is clearly proved that he, at any rate, carried out his instructions correctly in the case of No. 2 special train, which immediately preceded No. 14—

(2.) Signalman Briggs (Farington No. 1) is quite sure that at the time when he lowered the starting signal for No. 14 train, Bashall sidings distant was at danger, and judging from the records in the train register book, the train must have passed within one minute of that time. Unfortunately, *these* signals were not seen, so far as I could ascertain, by anyone but the driver and his fireman, at the actual moment when the train passed.

Bashall's siding up home signals are, as described above, on separate posts, but the two posts are side by side on the east of the railway, and the post nearest to the fast line necessarily carries the slow line signals; the signals of the two lines are distinguished by rings on the semaphore arms for the slow line, and although the accident occurred at 8.54 p.m., all the witnesses agree it was still quite light and that there was no difficulty in seeing the signals clearly from a considerable distance. The slow line signals were "off" for the North Western train—that is to say, Bashall's siding home signal and Leyland distant signal. The fast line signals were both at danger according to the signalman's story, but the driver says the home signal was "off" and only the distant signal at danger. Here, again, there is certain amount of evidence which is more favourable to the signalman than to the driver; for, disregarding Bennett's evidence, the police brought forward witnesses who saw the slow line signals "off" and the fast line signals "on" *immediately after* No. 14 train had passed.

As driver Whyte admits Leyland distant signal was against him, it is necessary to examine carefully what action, if any, he took to get his train under control; and how far this portion of his story is in accordance with probabilities and with the evidence of other witnesses. Leyland distant signal is, I should point out, about 780 yards north of Leyland home signal and about 590 yards from the point of collision. Now Whyte says he shut off steam passing the distant signal, but this is entirely opposed to the evidence of the police witnesses, and it would seem to be absolutely disproved by the evidence of the rear guard (Duckworth), to which I shall have to refer again. Three of the police witnesses were at the overbridge between Bashall sidings and Leyland, 163 yards north of the tail end of the stationary train (No. 2), and nearly 400 yards south of the signals, where they were well placed to see everything; they agree that No. 14 train passed under the bridge in full steam, and they think

steam was only shut off just as the collision took place. The evidence of both guards of No. 14 train, and the results of the collision, lead me to much the same conclusion; I do not believe that the driver shut off steam until he saw the train in front of him, after passing through the bridge referred to above. If he cannot be believed on this point grave doubts must be felt as to the truth of his story in other respects; and taking everything into consideration I can have little hesitation in recording my opinion that the accident was due to driver Whyte running past both the home and distant signals of Bashall cabin while they were at danger, although I must admit that the position of those signals at the critical moment is not proved beyond doubt by eye witnesses. Whyte came on duty at a very early hour, 3.45 a.m., but he had 7½ hours off the engine, at Morecambe.

Any suspicion which may still exist as to signalman Robinson's action is due to the serious irregularity he committed in allowing Bennett access to the cabin, and in permitting him to touch the levers in the cabin; in other respects, there is much in his favour. His train register book was properly kept up, he appears to have carried out the transactions relating to all the trains accurately and in due form, and the story he tells as to the measures adopted by him when he realised that No. 14 train was not going to pull up at his home-signal is confirmed alike by the signalman at Leyland and by the guards of No. 14 train. As I have said, I think he is mistaken in his estimate of the interval between the North-Western and No. 14 trains, when passing his cabin, but this is scarcely to be wondered at under the circumstances.

Robinson says he saw that No. 14 train was going too fast to stop at the home-signal before it reached the signal, probably, therefore, when it was from 250 to 300 yards from the cabin—the signal being 193 yards north of the cabin—he gave the "train running away," signal to Leyland cabin, and then went to the window with his red flag; he says he got to the window, with the flag, as the train was passing his signals, but this seems hardly possible. There is, however, no doubt that he was doing his best, with the flag, to attract the attention of the trainmen when the train passed the cabin, and both guards eventually realized the fact; the rear guard (Duckworth) says *he* was just passing the cabin when he acknowledged the signal and went to the vacuum-brake, at which time his engine would not be more than 60 or 70 yards north of Bashall's bridge, or 220 or 230 yards from the point where the collision occurred. It was when Duckworth tried to put on the brakes that he became aware the engine was still in steam. The front guard only noticed the signalman after he had passed the cabin some distance. I am disposed to think that the guards either did not apply the brakes at once or else that they did so in a manner intended rather to gain the driver's attention than to pull up the train as quickly as possible. In so short a section there was, of course, no time to be lost. I fear many guards do not fully realize either their responsibilities for keeping a good look-out, or the means at their disposal for stopping a train in an emergency; they are inclined to leave the safe working of the train entirely to the driver and the signalman.

It will be noticed that No. 2 special had been standing at Leyland home-signal about four minutes, in consequence of the section ahead being blocked by other trains, before it was run into by No. 14 special; and signalman Clitheroe says the usual practice, at this station, was followed. It is customary, and certainly desirable, in such cases to bring the train within the protection of the home-signal, instead of leaving it outside the signal. The home-signal is however close to the south end of the station, and the platform is stated to have been crowded with people (I believe there had been a flower show at Leyland that day); it was therefore perhaps inadvisable to bring the special train, which was not due to stop at Leyland, alongside the platform.

In conclusion, I would recommend a slight alteration to be made in order to improve the view of the up fast line signals at Bashall's sidings, the view being, at present, somewhat interfered with by the telegraph wires.

The Assistant Secretary,
Railway Department, Board of Trade.

I have, &c.,
G. W. ADDISON,
Lieut.-Col., R.E.

APPENDIX.

PARTICULARS OF DAMAGE TO STOCK.

No. 2, special, Blackpool to Manchester.

No. 726, third van.—Body completely broken up: under-frame badly damaged.

No. 589, compo.—Body and under-frame badly damaged.

No. 638, third.—Two side quarters and end of body broken; one headstock and one draw-bar broken.

No. 1729, third.—Two side quarters of body, two doors, one end damaged; four buffer castings broken.

No. 560, third.—Body moved, two ascending steps bent, and buffer-casing broken.

No. 431, third.—One headstock, one middle bearer, buffer-casing, and vacuum brake pipe broken.

No. 810, third.—Body moved, one headstock broken, and one buffer-rod bent.

No. 730, third.—Two headstocks, and three buffer-casings broken.

No. 489, third.—One headstock, two longitudinal, two buffer-casings, and two side chains, etc., broken.

No. 211, second.—One headstock and buffer-casing broken; two buffer-rods bent.

No. 259, first.—Two buffer-casings broken, and two buffer-rods bent.

No. 637, third van.—Two headstock, two middle bearers, one buffer-rod, and one draw-bar hook broken; three buffer-rods bent.

No. 14, special, Morecambe to Radcliffe.

No. 608, third van.—Buffer-rod bent, and swing light broken.

No. 48, third.—One headstock and one quarter light broken; one buffer-rod bent.

No. 177, third.—One buffer-rod bent, and one quarter light broken.

No. 311, third.—Two headstocks broken, and two buffer-rods bent.

No. 107, first.—Two buffer-rods bent.

No. 1,530, third.—One middle bearer broken, and three buffer-rods bent.

No. 630, third.—One middle bearer broken, and two buffer-rods bent.

Printed copies of the above Report were sent to the Lancashire and Yorkshire and Lancashire and Yorkshire and London and North-Western Joint Companies on the 15th August.

LONDON AND SOUTH-WESTERN RAILWAY.

Railway Department, Board of Trade,
8, Richmond Terrace, Whitehall, London, S.W.,
April 25th, 1898.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with the instructions contained in the Order of the 13th inst., the result of my enquiry into the causes of a collision which occurred at Bisley Station, on the London and South-Western Railway, on the 11th inst.

In this case a light engine (No. 175), running tender first, and coming from Brookwood Station to Bisley, came into violent collision, at about 6.10 p.m., with a loaded special train of 11 vehicles which was standing at Bisley platform, and to which the engine was to have been attached to take it back to Waterloo, whence it had brought it in the morning.

The train, which was a block train with a brake-carriage at one end and a brake-van at the other, was driven back for about 40 feet, the brakes in both the van and the brake carriage being on, and it was considerably damaged. The brake-van, the vehicle which was struck by the engine, was smashed, the end of the carriage next to it was broken in, and the bodies were shifted, headstocks broken, or some windows broken in all the other vehicles. The tender of the engine was slightly damaged. (For return of damage see Appendix.)

Twenty-three of the passengers, volunteers of the 15th Middlesex Regiment, were injured so much as to prevent them from walking to Brookwood to be entrained, some of the injuries being severe; and altogether no less than 130 complaints of injury have been received. Most of those complaining, however, have probably been only slightly injured.

Description.

Bisley Station is at the terminus of a short branch $1\frac{1}{4}$ miles in length, from Brookwood Station, and it is only used occasionally when required for the convenience of volunteers going to Bisley Camp for practice or manœuvres.

It falls from the main line to the crossing of the Basingstoke Canal, and then rises to the terminus, on gradients of 1 in 50 and 1 in 60.