

THE LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.,
20th October 1894.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 15th ultimo, the result of my enquiry into the causes of the slight collision which occurred on the 11th ultimo at Victoria station, Manchester, on the Lancashire and Yorkshire Railway.

In this case the 4.10 p.m. passenger train from Colne, due at Victoria station at 5.25 p.m., ran into the rear of the 5.40 p.m. passenger train (loading at the time) from Victoria station for Radcliffe, the rear vehicle of which train was standing on No. 13 platform line, about five yards inside the home-signal of the platform cabin.

Four passengers, all in the Radcliffe train, have complained of injury.

The collision occurred at 5.32 p.m.

In the Colne train, which consisted of a tender-engine running engine in front and seven vehicles, fitted with the automatic vacuum-brake applying to the four coupled wheels of the eight-wheeled engine the six tender wheels and to the wheels of all the vehicles, no damage was sustained nor did any wheels leave the rails.

In the Radcliffe train (in which the continuous brake was applied) the rear van and a composite carriage were slightly damaged; the rear wheels of the van were knocked off the rails, this van and the engine of the Colne train being buffer-locked.

Description.

This collision occurred close to the platform cabin, which was erected about 15 months ago near the centre of the station to better regulate the movement of trains along the through-platform lines. For this purpose, so far as the present collision is concerned, this cabin is provided with distant and home signals for No. 13 platform line for trains entering the station from the west; the distant-signal is underneath the Irwell Bridge cabin home-signal for this line, and is 260 yards from the home-signal, which is nearly opposite the cabin; this home-signal, on account of the curve of the platform line, cannot be well seen by the driver of an approaching engine. Irwell Bridge cabin is provided with home-signals for the platform lines and with calling-on arms for Nos. 13 & 14 of those lines, these calling-on arms being used only in case of an obstruction between the Irwell Bridge cabin and platform cabin home-signals.

The rule (bearing upon this collision) for the guidance of the signalmen in the platform cabin is as follows:—

Instruction No. 6.

“If the line is occupied between the platform box home-signal and the signal at the end of the platform, the signalman at the platform box may accept the train but must keep both the home and distant signals at danger.”

For the guidance of drivers the following rules have been issued:—

Platform Signal Box.

“Drivers will understand that—

“1. If the distant-signal for the platform box is ‘off,’ the line is clear up to the signal at the end of the platform.

“2. If the distant-signal for the platform box is ‘on’ and the home-signal at Irwell Bridge or East Junction is ‘off,’ the line is clear up to the platform box home-signal only.

“3. If the ‘calling-on’ arm at Irwell Bridge or East Junction is lowered, the line may be obstructed at some point outside the platform box home-signal, and that they must be prepared to stop short of the obstruction.”

Evidence.

1. *Thomas I. Gillibrand*, signalman.—14 years' service, and 3½ years signalman. I have been employed in the platform cabin, since July 1893, when it was first opened. I came on duty on September 11, at 2.30 p.m., to remain till midnight. I had admitted an empty train from Salford at 5.28 p.m. to form the

5.40 p.m. train for Radcliffe; the rear of this train stopped about five yards inside the home-signal of No. 13 road, and did not move again before the collision. At 5.30 p.m., I got "three bells—one" for the Colne train from Irwell cabin, and I accepted the train, having first cleared with "Two pause one," turned the needle to "Line clear," and accepted the train with "three bells—one," it was immediately given "On line," upon which I pegged the needle to "Train on line." I had put back the distant and home signals to danger on the arrival of the empty train, and kept them at danger against the Colne train. I saw the Colne train approaching and did not at first think the driver would over-run, but within a short distance of the home-signal the wheels of the engine appeared to skid, and I then was afraid there would be a collision, which occurred at a walking speed. The Radcliffe train was moved forward, not more than two or three feet, the rear wheels of the van being knocked off the rails. The Colne train stopped dead on striking the other train, no wheels being off the rails. The collision occurred at 5.32 p.m. The evening was fine. I did not speak to the driver of the Colne train. Had the Radcliffe train been standing on the Irwell cabin side of my home-signal, I should have accepted it with one beat, and kept the block "On," and in this case the Irwell Bridge signalman, should have stopped the train at his home-signal, and then called it on with the calling-on arm. This latter is a common occurrence.

2. *Thomas Pennington*, signalman.—19 years' service, 18 years signalman. I have been employed four years in Irwell Bridge cabin, where I commenced work at 2 p.m. on the 11th Sept. for an eight-hours shift. The empty train from Salford to form the 5.40 p.m. train for Radcliffe, passed the cabin at 5.30 p.m. with clear signals, the distant-signal from the platform cabin being off. On giving the warning-signal, four bells, for the Colne train, I got "Clear" for the empty train, and the signal accepted for the Colne train. I gave this train "On" at 5.31 p.m., and the needle was pegged over to "Line clear" and immediately after to "Line blocked," the train passing at 5.32 p.m., having been checked about 100 yards from the home-signal, which I had not lowered till I heard from Salford on the telephone the description of the train. When I took off my home-signal for No. 13 road I saw that the distant-signal from the platform cabin remained at danger. The driver passed at a speed of eight miles an hour, nothing to alarm me, and I think I heard the collision occur shortly after. The weather was not foggy. I did not notice any noise of releasing the vacuum-brake as the train passed me.

3. *George Edward Hindle*, platform inspector at Victoria.—20 years' service, 7 years platform inspector. I commenced work on September 11th at 11.20 a.m. for 12 hours, with two hours off for meals. I was standing on No. 8 platform about 40 yards on the Irwell Bridge side of the platform box home-signal when the collision occurred. The Colne train passed me while standing there at a speed of four or five miles an hour. When the engine passed me I did not think there would be a collision, but I looked round to see where the Radcliffe train was and noticed that the rear vehicle was just inside the home-signal. I then heard the collision occur, upon which the Colne train stopped dead. I could not say what means were being taken to stop the train; the driver and fireman appeared to be looking forward. Soon after the collision I asked the driver how it had occurred. He said his "brake seemed to pick up." I am not aware that there was anything in the condition of the rails to account for this. It was necessary to bring the engine of the train close up to the home-signal to get the whole of it alongside of the platform. The rear vehicle of the Radcliffe train had its trailing-wheels knocked off the rails, and it and the engine of the Colne train were buffer-blocked; no wheels were off the rails in the latter train. I believe the afternoon was

fine, but not bright. There were comparatively few passengers in the Radcliffe train at the time of the collision.

4. *William Wilde*, guard.—2 years' service, guard about 20 years. I commenced work on September 11 at 2.30 p.m., to book off about 11 p.m., and was in charge of the 4.10 p.m. passenger train from Colne for Manchester, where it was due at 5.20 p.m. We started, I believe, punctually, made eight booked stops, Salford being the last one, where we were four or five minutes late; the empty train was leaving the Salford loop, when my train had come to stand on the main line there. There was no over-running at any of the stopping places. After leaving Salford we were stopped at the starting-signal about three minutes, which I concluded was on account of the empty train. After this we proceeded onwards, and were brought nearly to a stand at the Irwell Bridge home-signals, that for No. 13 road being lowered when the engine was about a train's length from it, but the platform cabin distant-signal remained at danger as long as I saw it. After this I do not think the speed exceeded five or six miles an hour, and the train came to a stand at 5.32 p.m. without my being aware that there had been any collision until a postman informed me of it. I had applied my hand-brake before reaching Irwell signal-cabin, and I had it on when the collision occurred. The vacuum-gauge showed about 19 inches, when the vacuum-brake was used on passing Irwell Bridge cabin; it was not used again till just before the collision. The vacuum had been reduced about four or five inches, and I did not notice it being recreated. The train consisted of a brake-van, three third-class, and two composite carriages, and a brake-van in rear, in which I was alone. It is necessary to draw the train up as far as possible to get it all along the platform. I did not observe the train gain speed on its way along the platform. The vans had four wheels, and also, I believe, one or two of the third-class carriages.

5. *John Richardson*, driver.—32 years' service, 7 years driver. On the 11th September I signed on duty at 11.45 a.m. to sign off at 11.45 p.m. I had several intervals of rest, the longest time being about one hour. I first took a passenger train from Manchester to Colne, and returned from Colne with the 4.10 p.m. passenger train for Manchester. I started to time, the train consisting of engine and tender, No. 905, running engine in front and seven vehicles. The brake power consisted of the vacuum-brake applying to the four coupled-wheels of the eight-wheeled bogie engine (bogie in front), the six tender wheels and to all the vehicles. Besides this there was the tender hand-brake and the van hand-brakes. The vacuum pressure varied between 17 and 22 inches. I had never driven engine No. 905 before this day, but I had often driven engines of the same type. My fireman was Sydney Hopwood, a stranger to me, but belonging to the engine, the driver of which was on leave. I was perfectly acquainted with the road from Colne and I reached Salford without anything unusual occurring; I did not notice any train leave Salford as I stopped there at about right time. Up to Salford the vacuum-brake had acted properly, there being 18 inches of vacuum on leaving Salford, where we were stopped about three minutes at the advance-signal. After leaving this I was nearly brought to a stand by the Irwell Bridge home-signals but when about an engine-and-carriage length from them, the home-signal for No. 13 road was taken off, but not the distant-signal underneath it which is the one worked from the platform cabin. I knew by this state of the signals that I might proceed as far as the home-signal of the platform cabin and I went on, intending to stop there. I first put on steam and shut it off underneath the signals of Irwell Bridge cabin, my speed being not more than 4½ miles an hour, and I never reapplied it. When about an engine's length inside the end of the platform the fireman applied the hand-brake, but the tender wheels picked up; I then applied the vacuum-brake,

but as this caused the engine wheels to pick up I released the brake when I was about a carriage length from the home-signal, and then again applied it, but nevertheless struck the Radcliffe train at a speed not exceeding one or two miles an hour. Neither I nor the fireman jumped off, nor were we hurt. The sandboxes were opened as we went along the platform, but owing to the curves the sand did not lodge on the rails. I have not often run into this platform road before, but often into No. 14. I could not see the signal till close upon it from my side, the left of the engine. My impression is that the rear of the Radcliffe train was right under the signals. Another time I should make a point of seeing the home-signal for myself. I did not ask the fireman the condition of the home-signal.

6. *Sidney Hopwood*, fireman.—Six years' service, 14 years fireman. I booked on at 11.45 a.m. on September 11th to book off at 11.20 p.m., with certain intervals of rest, the longest being one at Colne of about one hour. I was with Richardson on the 11th, but he was not my regular driver, who was on leave. We made the journey to Colne all right and on coming back all went well up to Salford, where we stopped on the main line, a train starting from the loop as we came to a stand. We were then stopped a short time at the Salford advance signal, and were nearly stopped again at Irwell Bridge home-signals and were about 100 yards from them, slowed down to one mile an

hour; when the signal for No. 13 platform line was taken off, but not the distant-signal under it. The driver then released the brake, and gave the engine steam, shutting it off before he came to the signal and attaining a speed of about four miles an hour; steam was never applied again. The speed was no faster than usual. I knew we had to stop at the platform cabin home-signal, and I applied the tender hand-brake about Irwell Bridge cabin and then at the end of the platform, as hard as I could; it acted properly and would by itself have stopped the train a few yards past the home-signals; the driver applied the vacuum-brake when a short distance along the platform, the effect of this was to skid both tender and engine wheels and the speed seemed to increase; on seeing this the driver released the brake and re-applied it when close to the other train, which we struck at a speed of less than two miles an hour, the buffer of the engine getting underneath the buffers of the van; we stopped almost immediately. I am not aware whether the rails were greasy. I applied sand when the wheels picked up, but I do not think it ran properly. The platform home-signal can be best seen from the fireman's side. There was no idea or intention of running beyond this signal. I said nothing to the driver about coming in too fast, but when about five or six carriages lengths off I told him there was a train ahead. My impression is that the tail of the Radcliffe train was right under the home-signal, in much the same position as it usually is.

Conclusion.

This slight collision was brought about by want of due care on the part of Richardson the driver of the train from Colne, who, with the perfect knowledge that he had to stop his engine at the platform cabin home-signal of No. 13 platform line, not only failed to do so, but allowed it to overrun that signal by about five yards, and there to strike the rear van of the Radcliffe train, which was loading at the time (and of which train the brakes were on) with sufficient momentum to force its front buffers under the rear buffers of this van.

Richardson pleads in excuse for his conduct that, when approaching the platform cabin home-signal at a speed not exceeding $4\frac{1}{2}$ miles an hour and finding that the tender brake (which the fireman had applied some distance back) would not be sufficient to stop the train at this signal, he applied the vacuum-brake, thereby causing the engine wheels to skid; that he released the brake in consequence when about 10 yards from the home-signal, and again re-applied it, but not in time to stop the train before it collided with the brake van of the Radcliffe train.

Richardson's mistake was in allowing his train to enter the platform line at too high a speed, and then, when he found that he would not stop at the proper place, in applying the vacuum brake with full force, (thereby causing both engine and tender wheels to skid) instead of moderately.

Richardson has been 23 years in the service, and seven years a driver. He was well acquainted with the line between Colne and Victoria station, but had been in the habit of running more frequently into No. 14, than into No. 13 platform line. Both engine and fireman were strange to him, he having taken the place of the regular driver, who was on leave. These circumstances combined no doubt contributed to his making the mistake he did. He had commenced work at 11.45 a.m., to continue to 11.40 p.m., with some intervals of rest, but none exceeding one hour in duration, and had therefore been on duty about $6\frac{3}{4}$ hours when the collision occurred.

Hopwood, the regular fireman of the engine, whose evidence agrees fairly well with that of Richardson, appears to have had no apprehension that the platform cabin home-signal would have been overrun; he says that when about five of six carriage lengths from the signal he told Richardson that there was a train ahead, the tender hand brake being hard on at the time and the speed not exceeding four miles an hour; that Richardson thereupon applied the continuous brake causing the engine and tender wheels to skid; and that on finding this to be the case Richardson released the brake and again applied it when close to the other train; but too late to avert the collision. Hopwood says that he opened the sandboxes when the wheels began to skid, but that he thinks the sand did not run properly. If so, he himself must be to blame for not having seen that the apparatus was in proper order before leaving Colne.

Hopwood has six years' service and has been a fireman $1\frac{1}{4}$ years. His hours of duty on September 11th were 11 hours 35 minutes, or 20 minutes shorter than Richardson's, with similar intervals of rest. He had also been on duty about $6\frac{3}{4}$ hours at the time of the collision.

No blame is to be attached to Wilde, the guard of the Colne train, who was unaware, until he was so informed, that any collision had taken place.

The signalmen both in the platform and Irwell Bridge cabins appear to have acted strictly in accordance with their instructions.

With regard to these instructions I much question whether the platform cabin signalman should be at liberty to accept a train from Irwell Bridge cabin (whereby the signalman in that cabin is justified in lowering his home-signal), when a train is standing on a platform line, on which another train is approaching, with its tail only (as in the present case) just inside the platform home-signal. Unless there is a fair interval (say 30 yards) between the home-signal and the tail of a train, No. 7 instruction should, in my opinion, apply, this allowing of a train being so accepted as only to allow the "calling on" arm at Irwell Station being lowered for it, whereby the driver would understand that he might find the platform line obstructed at any point and that he must be prepared accordingly to stop short of the obstruction.

The attention of the Company should be drawn to the hours of work of the driver and fireman of the Colne train—11 hours 55 minutes, and 11 hours 35 minutes respectively—as being longer than are reasonable, and to the consequent necessity for their reduction.

The Assistant Secretary,
Railway Department, Board of Trade.

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

Printed copies of the above Report were sent to the Company on the 10th November.

LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.,
21st January 1895.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 28th December 1894, the result of my enquiry into the collision that occurred on the 26th idem at Lowmoor station, on the Lancashire and Yorkshire Railway.

On this occasion, while the 10.55 p.m. special train from Leeds to Manchester was standing on the up main line with the rear portion foul of the junction between the up main and up loop lines, it was run into in rear by another special train which had left Bradford at 11.10 p.m. for Heckmondwike, and which was being admitted into the up loop line.

The effects of this collision were serious. Thirty-four passengers are reported to have been more or less injured, two of whom had their legs broken, and one of whom died on the 10th instant from the effects of the injuries she received.

The special train from Leeds consisted of 10 coaches in the following order from the front:—Four third-class carriages, a second-class brake-van, a third-class, a composite, two thirds, and a third-class brake-van. The train was fitted with the vacuum-brake, and as the engine had been detached, the brakes were hard on at the time the other train struck it. The effect of the collision was to force the Leeds train forward about a coach's length. The three last vehicles were badly damaged, the brake-van being shattered, and the ends of the two next coaches staved in. The brake-van was forced off the rails and stood obliquely across the up main line, in such a way as to foul both the up loop line and the down main line. The next vehicle was derailed and forced outwards into the 6-ft. way, and the third vehicle from the end had its trailing-wheels lifted up in the air, the leading-wheels remaining on the rails. The rest of the train was uninjured.

The special train from Bradford for Heckmondwike consisted of a six-wheeled coupled goods engine, six-wheeled tender, and eight coaches. It was fitted throughout with the vacuum-brake, and the engine was running tender first. The right-hand leading buffer of the tender seems to have struck the centre of the brake-van of the train in front, and drove it forward, at the same time causing it to swing round in the