

LANCASHIRE AND YORKSHIRE RAILWAY.

Railway Department, Board of Trade,
8, Richmond Terrace, Whitehall, London, S.W.
26th April, 1907.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 12th April, the result of my inquiry into the causes of the collision which occurred on the 25th March between a passenger train and the buffer stops at Newton Heath on the Lancashire and Yorkshire Railway.

In this case the 11.5 p.m. passenger train from Manchester to Littleboro' collided with the buffer stops at the end of the extension siding behind the station.

Four passengers complained of being slightly injured.

The engine and the front bogie wheel of the first carriage were derailed, and the buffer stops were knocked down.

The train consisted of a four-wheels-coupled tank engine, with a radial axle at each end, running engine first, with the automatic vacuum brake acting on the four coupled wheels, and of the following vehicles in the order named, viz. :—

Bogie third van.
Two six-wheeled composites.
Bogie third.
Bogie third van.
Bogie third.

with the automatic vacuum brake acting on all wheels with the exception of the centre pairs of the two six-wheeled composite carriages.

The brakes are stated to have been in good order at the time.

The collision occurred at about 11.16 p.m. on a foggy night.

Details of damage to rolling stock are given in the Appendix.

Description.

There are four lines of way approaching Newton Heath Junction from Manchester, viz., up and down fast, and up and down slow lines. These converge into one up and down main line opposite the signal-box.

The lines run approximately north and south, and the fast lines are on the west side of the slow lines, so that the down fast line on which the train in question was travelling is the most westerly of the four.

The signal-box is at the south end of the station, and the junction points are opposite its north end. Ninety-four yards south of the signal-box and junction points there are facing points in the down fast line leading into a back road or siding, which runs behind the signal-box and down platform; 70 yards south of these facing points are situated the down home signals. These are three in number, placed on a long bracket fixed to a post on the left-hand side of the down fast line, the bracket stretching out over the pair of fast lines.

The left-hand signal is a small semaphore arm on a low level and applies to the back extension siding. The middle one is a tall one with a distant arm underneath and applies to the fast line, and the right-hand one is lower than the middle one and applies to the slow line; it also has a distant signal underneath. The first two named are well to the left of a driver approaching them on the down fast line, and the third is to his right, but the third is to the left of a driver on the down slow line to which it applies.

The length of the back road from the home signals to the buffer stops is 420 yards.

The gradient of the down fast line is a steep rising one of 1 in 139 to the facing points leading into the siding, and then is 1 in 176 rising beyond. The gradient of the back siding is a falling one all the way to the buffer stops, varying from 1 in 1,165 to 1 in 114, with the exception of one short length of level line.

Evidence.

Jos. Bardsley, signalman, states: I have been in the service about 20 years, and a signalman 17 years. I have been at Newton Heath Junction box 15 months, previous to which I was assistant signalman at Thorpes Bridge Junction. On

March 25th I came on duty at 10 p.m. to work until 6 a.m., having gone off duty the same morning at 6 a.m. I had not been out of the house between the time of getting home in the morning and coming on duty again at night. The

"Is line clear" signals for both the 11.5 p.m. from Manchester to Littleboro', which travels *via* the loop, and the 11 p.m. from Manchester to Bury which comes *via* Miles Platting, were received by me at 11.9 p.m. and I accepted them at the same time, the former on the fast line and the latter on the slow line. I intended to give the Bury train preference and had the points leading from the down fast line to the carriage shops extension set for the latter direction, which is the usual practice. There was a slight fog moving about at the time. The down home signals for the fast and slow lines and the signal for the line leading to the extension siding are on the same post on a bracket, the small signal for the siding being on the left-hand side, the fast line signal in the middle, and the slow line one on the right-hand side. The Littleboro' train was slightly ahead of the Bury train approaching my box, and I was watching the latter train when I observed the Littleboro' train had run past the signal. As the driver neared the box I shouted and tried to attract his attention, but the train appeared to gather speed and the engine had steam on. On passing my box the fireman was leaning over the cab side outside and appeared to be looking ahead, but he did not seem to hear me although I shouted and whistled. I did not show a red light because I could not get to my lamp in time, and the train went on and collided with the buffer stops at the end of the line. I left the box to see what had happened but had no conversation with the driver. The accident was clear of the main line. I lowered the signals for the Bury train as soon as it had been accepted by Moston Colliery box at 11.9 p.m., and it passed me at 11.16 p.m.

John James Kershaw states : I have been in the service 17 years and a passenger guard for 10 years. On March 25th I came on duty at 3.15 p.m. at Littleboro' to work until 12.15 a.m., having signed off duty the day before, Sunday, at 7.15 p.m. I was guard of the 11.5 p.m. from Manchester to Littleboro', which was formed as follows :—

Engine.
Bogie third van.
Six-wheeled composite.

"
Bogie third.
Bogie third van.
Bogie third.

The vacuum brake was working on all wheels except the middle ones of the six-wheeled composites. I did not see the distant signal for Newton Heath Junction, but the train appeared to slacken about this point and I could not see the Newton Heath Junction home signals on account of fog. Even when I passed the home signals I could not see them because of the fog and smoke. I did not feel the train turned into the extension siding, and the first I knew of anything being wrong was when the brakes went on and we came to a sudden stop, causing me to be thrown from one side of the van to the other. I think we were running about 10 miles an hour. I got my hand lamp and on alighting to see what was the matter I found we were in the road at the back of the station. The passengers were leaning out of the windows and I did my best to pacify them. On my way to the engine I met the fireman, who said "there had been a mistake." I found the engine off the rails and turned over on the left side, and the front bogie wheels of the vehicle next to it were also off the road. All the rest of the train was on the rails. On my way back from the engine I asked if any of the

passengers were injured, but no complaints were made to me. The signalman came down to see what had happened, and I afterwards locked up the mails in my van and went to the signal-box to enquire about the station master and make arrangements for working the passengers away. On returning to the train I found two or three constables attending to some of the passengers, and I then went and uncoupled between the front van and the next coach so as to be in readiness to draw the rest of the vehicles out of the siding.

Edwin Holland, driver, states : I have been in the service since 1872, and have been a regular driver since 1885. I finished duty at 6.15 a.m. on Sunday, March 24th, and came on duty on the 25th at 7 p.m., expecting to finish about 5 or 6 a.m. the next morning, at Sowerby Bridge. I was working the 11.5 p.m. passenger train from Manchester to Littleboro' with engine No. 1328, which is a four-coupled radial tank, fitted with the automatic vacuum brake, acting on the four-coupled wheels. I was travelling engine first. We left Victoria at 11.6, and had a perfectly clear road until I sighted the distant signal for Newton Heath Junction, which was at danger. I slowed down until I sighted the Junction home signals, and I then took the slow line signal, which was off, to be mine, and gave the engine more steam. There was a fog at the time, and I could not see the signals till close to them. I did not discover I was on the wrong road until I hit the buffer stops, and I thought it was a waggon I had struck. I had been bothered about the fire, as the engine was not steaming freely, so when I saw what I took to be my home signal and the distant underneath it off, I concluded I had a clear road to Moston, and opened the fire-hole door to have a look at the fire, and this dazzled my eyes. That is how I account for not noticing that I was not running on the main line. My fireman was a strange one, and was not acquainted with the engine. He had never been with me before. I never saw the other train on the slow line, which must have been behind me, and did not see any of the other lights on the signal post except the green ones, which I took to be mine. There was a shifting fog at the time. When my engine struck the buffers it pushed them forward, and the engine left the rails. I was not hurt. I frankly admit there is no one else to blame for the accident but myself. I have been driving 20 years past the place, and thick fog is the only reason for my mistaking the signal. If I had had my regular fireman it might have made a difference, as he might have noticed the signal, but I have no complaint to make against Holroyd, as he is a very willing lad.

Clement Holroyd, acting-fireman, states : I have been in the service since February, 1905, and am 21½ years of age. For the last six months I have been out firing nearly every day but mostly on goods trains. The most I have had at passenger work was a week, in the Halifax district, on a similar class of engine to the one I was firing on the 25th March. I signed off duty on Sunday, March 24th, at 6 p.m., after working in the store-room at Sowerby Bridge shed. I signed on duty on the 25th at 7 p.m., to act as fireman to driver Holland, expecting to finish in the ordinary course at the same time as my driver. On leaving Victoria with the 11.5 p.m. train I fired the engine in the ordinary way. I remember the driver slackening speed till he sighted the signals and then he gave the engine steam, and remarked to me that he would have a look at the fire to see what he could

do as the engine was not steaming freely. She had been steaming poorly all the way from Sowerby Bridge, the coal being too small. He opened the door and had looked into the fire-box when we came in contact with the buffer stops. This was my first trip between Manchester and

Littleboro', so I do not know the signals. I was relieving fireman Binns, who is driver Holland's usual mate, and who was on his holiday. When on goods work I was firing mostly on a pilot, which is a six-wheeled tank engine.

Conclusion.

The circumstances leading up to this slight collision were as follows :—

The train in question, the 11.5 p.m. Manchester to Littleboro', and the 11 p.m. train Manchester to Bury, were approaching Newton Heath Junction simultaneously, the former on the down fast, and the latter on the down slow line. These two lines converge at this signal-box, and the signalman, in order to carry out the Rules of Block Working before he accepted the Littleboro' train on the down fast line, turned the facing points in that line so as to lead into the extension siding at the back of the station. He gave the Bury train preference, and set the points, and lowered the down slow line home signal for it to run on to the down main line.

The Littleboro' train was a little in front of the Bury train, and E. Holland, the driver of the former, mistook the signals applying to the down slow line for the signal of the down fast, and so ran past his proper signal at danger, through the turn out into the extension siding without noticing that he had left the fast line, and did not find this out until he collided with the buffer stops at the end of the siding 420 yards beyond the down home signals.

Driver Holland is an able and experienced driver, and can only say that he mistook the signal owing to the drifting fog at the time. He had passed the distant signal at danger, and was preparing to stop at the home signal, if it was at danger when he sighted it, so he was travelling quite slowly. He has been driving past the place for 20 years, and no alteration has been made in the signals for some eight or nine years, and they are quite distinct.

The signals are on a long bracket on a post on the left-hand side of the down main line.

There are three signals, viz., a short low one on the extreme left, referring to the extension siding at the back of the station, then a high one relating to the down fast line, and then on the right the one referring to the down slow line lower than the middle one. Moreover, the semaphore arm and light relating to the fast line is well to the left of a driver on an engine approaching it, while the one relating to the down slow line is well to the right of a driver on the down fast line. It was a most unfortunate mistake to make, and driver Holland admits frankly that no one but himself is to blame for it.

After being satisfied that the signal was off for him, driver Holland put on steam, and then as the engine was not steaming freely he opened the fire-hole door to look at the fire, and this dazzled his eyes. No doubt in consequence of this he did not notice that he had run off the main line into the back siding, going behind the signal-box and station, and he still had steam on when he collided with the buffer stops.

Driver Holland had not his usual fireman with him, as the latter was away on a holiday, so a young acting-fireman, C. Holroyd, was with him at the time, who was strange to the engine and not acquainted with the signals of the line on which they were running. It is possible that a fireman accustomed to the road might have noticed driver Holland's mistake regarding the home signal, and that the train was turned into the siding off the main line.

Although acting-fireman Holroyd was not acquainted with the signals, he was fully capable of firing on the engine. He is 21½ years of age, of very good physique, and had been engaged in firing for nearly six months, mostly on goods trains.

I have, &c.,

E. DRUITT,

Lt.-Col. R.E.

The Assistant Secretary,
Railway Department, Board of Trade.

APPENDIX.

Lancashire and Yorkshire bogie third van, No. 1185.—One headstock broken; one heating pipe broken; one top footboard broken; one double pull rod bent; two single pull rods bent; one bogie cross bar bent; one bogie sole bent; one drawbar bent; three buffers bent.

Lancashire and Yorkshire composite, No. 200.—One headstock tread bent; two buffers bent.

Damage to Engine.

Radial passenger tank engine, four-coupled wheels, No. 1328.—Coal bunker backplate damaged; left-hand bunker buffer broken; cylinder mud taps broken; front vacuum train pipe broken.

Printed copies of the above Report were sent to the Company on the 25th May.

LONDON AND NORTH-WESTERN RAILWAY.

Railway Department, Board of Trade,
8, Richmond Terrace, Whitehall, London, S.W.,

May 10th, 1907.

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 27th March, the result of my inquiry into the collision that occurred at about 11 a.m., on the 22nd idem., at Lime Street Station, Liverpool, on the London and North-Western Railway.

In this case, as the 7.40 a.m. special train from Birmingham to Liverpool was entering No. 9 platform line at Lime Street Station, it came into collision with a train of empty coaches standing at the buffer stops on that line. The guard of the Birmingham train and 23 passengers sustained slight injuries, such as shock and bruises.

The stationary train consisted of a tank engine and six vehicles, of which five were eight-wheeled bogie carriages and one a six-wheeled parcel van. The total length of this train was 298 feet, or in round numbers, 100 yards.

The Birmingham train consisted of a four-wheels-coupled bogie passenger engine, a six-wheeled tender, and nine vehicles, of which two were eight-wheeled carriages with radial axles, and the remainder six-wheeled carriages. The total length of this train was 131 yards.

The stationary engine had its right leading buffer broken, both back buffers and back of the bunker damaged. The Birmingham engine had the front buffer plate and framings badly bent, and both front buffers broken. All the coaches of the stationary train were more or less damaged, and the two front coaches of the Birmingham train had their buffers bent. Some carriages standing in an adjacent platform line had a few windows broken through the scattering of the broken parts of the trains in collision. For full particulars of damage to rolling stock, see Appendix.

No wheels left the rails, and no damage was done to the permanent way.

Description.

There are seven arrival platforms in Lime Street Station—namely, Nos. 5, 6, 7, 8, 9, 10 and 11—No. 11 being at the extreme south side of the station. Several of these lines are signalled for both arrival and departure.

No. 9 platform is 218 yards long, of which about 100 yards was occupied by the stationary train at the west end of the platform, leaving about 118 yards available for the Birmingham train, which, as already stated, was 131 yards long.

The signal-box is situated a short distance outside—*i.e.*, to the east of—the station, and is about 100 yards from the end of No. 9 platform. The home signals controlling the movement of trains into the station are placed upon a gantry 178 yards east of the cabin. They are divided into two groups—one for the down slow line and the other for the down fast—each group containing a separate signal for each platform line, so that a driver, whether on the down fast or down slow line, knows by the lowering of one of the signals which platform line he is to enter. Although situated in a deep cutting, where the atmosphere is frequently hazy and dull, they are well-defined signals, and easily read.