

LANCASHIRE AND YORKSHIRE RAILWAY.

SIR,

Carlisle, 22nd June 1872.

In compliance with the instructions contained in your minute of the 23rd ult., I have the honour to report, for the information of the Board of Trade, the result of my inquiry into the circumstances which attended the collision that occurred on Whit Monday, the 20th ult., at the mouth of the tunnel at the east end of Blackburn station, on the Lancashire and Yorkshire Railway.

An express train, which was due to arrive at Blackburn at 9.41 a.m. did not reach the station until 9.53 a.m. A number of people were waiting at the station to proceed by the express. There was not room for all of them in the train, so the inspector ordered some empty carriages to be brought from the sidings at the south side of the station, for the purpose of being attached to the express.

The tunnel next to Blackburn station is supposed to be worked on the block-telegraph principle. The block stations are Daisy Field cabin, which is about 300 yards from the east end of the tunnel, and Blackburn East cabin, which is at the west side, at the mouth of the tunnel. The custom appears to have been to give "line clear" on the block instruments at Blackburn East End cabin, whilst the tunnel was obstructed at the Blackburn end; and to trust to a distant-signal which is placed at the east end of the tunnel, and to a ground-signal which is placed inside the tunnel, about 120 yards from the west end, to stop trains that approach the station from the east.

In order to get the empty carriages from the siding at Blackburn to the express train, it was necessary to draw them across the up line into the mouth of the tunnel, and then back them through a pair of slip points on to the express train, that was standing on the up line, at the south side of the centre platform. The siding signal was lowered for the train of empties to come out.

The inspector went to the tunnel cabin, at Blackburn station, east end, when the empty carriages were being brought out of the siding.

The signalman on duty in the cabin told the inspector that a special excursion train from Mirfield had been telegraphed to him from Daisy Field cabin, and that he had allowed the train from Mirfield to come on past Daisy Field cabin.

The inspector asked the signalman three times whether his signals were at danger against the Mirfield train? The signalman told the inspector that the signals were at danger, and the empty carriages were allowed to cross the main lines. As they went into the tunnel they were run into by the train from Mirfield, at a speed of four or five miles an hour.

Three or four of the empty carriages were broken, and one of them was thrown over on a guard, who was standing on the footboard, at the opposite side of the train to that which was struck by the train from Mirfield.

The guard was very much hurt.

The engine of the Mirfield train was damaged, and some of the handles were broken off the coaches of this train, but none of the vehicles left the rails, and none of the passengers complained of having been hurt.

The train from Mirfield consisted of an engine and tender and 25 coaches. Three coaches at the front end of this train, and three coaches at the tail of the train, were fitted with Fay's continuous breaks. There was also a single break-van about the centre of the train. The signals at Daisy Field cabin were lowered for this train to pass.

The engine-driver and guards of the Mirfield train stated that the train pulled up outside the east end of the Blackburn tunnel, as the signal at the entrance of the tunnel was at danger. They stated that this signal was lowered, and that the train proceeded forward into the tunnel about two minutes after it had stopped.

The tunnel is about 470 yards long. The gradient falls 1 in 120 towards Blackburn station. The engine-driver did not see the ground-signal,—which is about 120 yards from the west end of the tunnel, and which was at danger,—until he was close to it. The light in the signal-lamp was obscured by the smoke and steam from the engine that was attached to the train of empty coaches.

The driver of the Mirfield train saw the train of empty coaches crossing the line on which he was travelling at the same moment that he saw the ground-signal. He and the guards did their best to stop the train, but they could not prevent the collision.

The signalman at Blackburn East cabin asserted that he did not lower his distant-signal, which is at the east end of Blackburn tunnel, for the Mirfield train. The only manner in which this statement can be reconciled with the statements of the driver and guards of the Mirfield train is, that the signal must have been lowered when the train was admitted within the telegraph block between Daisy Field and Blackburn East cabin, and that it was raised again to danger after the Mirfield train had passed the signal, and at the time when the inspector brought the train of empty coaches from the siding.

One thing is certain, that the block-telegraph system in Blackburn tunnel has been nominal, not real; and, further, it appeared from the evidence, that engine-drivers have frequently run forward into the tunnel when the distant-signal at the east end of the tunnel has been at danger against them. The block-telegraph and the signals should always be worked in unison, to announce "danger" or "line clear," as the case may be.

The accident was the consequence of a very improper and lax system of working, for which the men cannot be blamed, when they are encouraged, if not ordered by the inspectors, to commit the irregularities and disregard the Company's rules.

The points and signals at Blackburn should be rearranged on the locking principle, and if the sidings are controlled by dead-ends, trains can not be let out of the sidings, when the signals are lowered for main line trains.

I have, &c.,

*The Secretary,
(Railway Department),
Board of Trade.*

F. H. RICH,
Lieut.-Col. R.E.

Copies of the above report were sent to the Company.

LANCASHIRE AND YORKSHIRE RAILWAY.

*Board of Trade,
(Railway Department),
Whitehall, 18th June 1872.*

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the instructions contained in your minute of the 24th ult., the result of my investigation into the circum-

stances attending a collision which occurred near Preston station, on the Lancashire and Yorkshire Railway on the 22nd ult., from a passenger train being run into by a pilot engine, which was on its way to assist the train up a bank.

Six passengers have complained of slight injury. The guard of the train had his head cut.

The train in question, consisting of engine and tender, nine coaches, two break-vans, and a waggon at the rear of the train, left Preston for Accrington at 6.21 p.m., 11 minutes late, having been detained waiting the arrival of a train from the North. From near Preston to Hoghton there is a long rising gradient of 1 in 100, of about seven miles in length, and a pilot engine is kept at Preston for the purpose of assisting trains up this bank, it being the custom here (as at other parts of the Lancashire and Yorkshire system) for the pilot engine to overtake the train after it has started and push it from behind. In the way the train had been at first made up it would not have needed assistance up the bank, but at the last moment it became necessary to add three carriages to it, and the pilot-driver was not informed till the train was on the point of starting that his services would be required.

The train had reached a point about $\frac{3}{4}$ mile from Preston, and was travelling up the bank at a speed of from 15 to 20 miles an hour when the pilot engine ran into the waggon at the rear with an impetus which was sufficient to unhook the front van from the tender. The train was soon brought to rest, and the only damage done was the breaking of a window in the rear van, through which the guard's head was knocked.

The pilot-driver states, that he followed the passenger train as soon as he could after being informed by the other driver, just as the train was starting, that his services would be required; that just as he was nearing the train its speed slackened, and that though he reversed, and got steam against his engine, he was unable to prevent a slight collision. He blames his

fireman for not paying proper attention to his break after he had told him to go to it, and says that he did not get it on at all.

The fireman, a very young looking man, who states that he was 18 years old last March, had been three months a fireman, and 12 months previously a cleaner, says that he put his break on directly his driver told him to do so; he also declares that there was a sudden slackening in the speed of the passenger train just before the collision.

The pilot engine received no damage.

This collision was the natural consequence of a dangerous mode of working. It was immediately caused by a want of due caution on the part of the driver and fireman of the pilot engine, who were no doubt pursuing the passenger train at a very high speed, which they were unable properly to control at the last moment, a circumstance almost certain to occasionally occur in connexion with this objectionable mode of working.

It would appear to be a more economical, and certainly a safer, method of working traffic up inclines of no great steepness, such as the one in question is, to provide engines sufficiently powerful to draw the ordinary trains up them without assistance; and when upon extraordinary occasions some increase of power is necessary, to attach a second engine to the front of the train.

I have, &c.,

The Secretary,
(*Railway Department,*)
Board of Trade.

C. S. HUCHINSON,
Lieut.-Col. R.E.

Copies of the above report were sent to the Company.

LONDON AND NORTH-WESTERN RAILWAY.

Board of Trade,
(*Railway Department,*)
31st May 1872.

Sir,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the instructions contained in your minute of the 23rd inst., the result of my investigation into the circumstances connected with the collision which occurred on the 18th inst., near Bescot junction, on the London and North-Western Railway, between a passenger train and a coal train.

One passenger was shaken, and two others had their faces cut.

At Bescot junction, between Birmingham and Bushbury junction, on the Grand Junction Railway, two lines branch off from the main line. One of these is a spur, giving a connection between the Grand Junction line and the line from Walsall to Dudley, to enable trains to run direct from Birmingham to Dudley; and the other line, on which this collision occurred, also joins the line from Walsall to Dudley, but in the contrary direction, so as to enable trains to run direct from Birmingham to Walsall. This latter junction, called Dudley junction, is 1,110 yards from Bescot junction, and 1,550 yards from Walsall. Bescot junction is protected towards Dudley junction by a home signal at the points, and by a distant signal, 680 yards from the home signal. The distant signal is visible for some distance on the Walsall side of Dudley junction. Besides protecting the junction it has also to protect a crossing from a siding, which runs across the line from Walsall and joins that to Walsall only 460 yards inside the distant signal; and it appears to be a recognised principle of working at Bescot junction that if the junction signals are against a train approaching from Dudley junction it should stop short of the aforesaid crossing, which is a very busy one, and not stand over it.

The line rises from Walsall up to Dudley junction

on a gradient of 1 in 150, and then falls at the same rate towards Bescot, for 470 yards (*i.e.*, 40 yards inside the distant signal), after which it continues to fall at 1 in 516.

There is electric bell communication between Bescot junction and Walsall, used for notifying the departure of trains. Between Walsall and Dudley junction the permissive block system is in force.

At 4.10 p.m. on the 18th (70 minutes late from having been detained on the down journey) a through mineral up-train, consisting of engine and tender, 34 loaded coal waggons, and a break-van, started from Anglesey sidings, seven or eight miles east of Walsall, for Birmingham. It ran through Walsall at about 4.50, and through Dudley junction at 5 o'clock, and the driver finding the Bescot junction signals against him, stopped with his engine clear of the crossing from the siding to the down line, according to the practice before mentioned, the van of the train being thus 220 yards inside the Bescot junction distant signal. The breaksman knew that there was a passenger train due out of Walsall for Bescot junction at 5, but as the weather was clear, his van well inside the distant signal, and within view of the Dudley junction signal cabin (650 yards off), he did not think it necessary to go back to protect his train, particularly as it had never been customary to do so at this place, under similar circumstances. He remained in his van, and when the passenger train was passing the distant signal heard its engine whistle, upon which he took off his break and jumped out, the collision then occurring at a speed of five or six miles an hour, at about 5.10. The van was knocked forward a few yards, and its buffers mounted the engine buffers. No damage at all was done to the coal train, which was able shortly to proceed on its journey.

The passenger train, consisting of tank engine, running chimney first, and four carriages, the first and last having a break compartment, with a guard in the