

The signalman should not have sent the watchman to the signal platform. If the points had been properly set home in the notch when the train backed in, they would have remained so without being held, and the train could not have left the rails.

The system of conveying heavy mineral waggons with passenger trains is always attended with more or less danger, and the practice of running passenger trains into mineral sidings which are controlled by catch points should be forbidden. The Act of Par-

liament forbids railway companies from using mineral sidings for passenger traffic which have never been sanctioned by the Board of Trade to be used for such a purpose.

There was only one passenger in the train in the present case. I was informed that he was not hurt.

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.

Normanton, 5th April 1872.

Sir, In compliance with the instructions contained in your minute of the 14th ult., I have the honour to report, for the information of the Board of Trade, the result of my inquiry into the circumstances attending the collision which occurred on the 12th ult., near Newchurch station, on the Lancashire and Yorkshire Railway, between a passenger train and a goods train.

One passenger is reported to have been shaken, and the guard of the goods train was slightly injured.

Newchurch is situated on the single line between Rawtenstall and Bacup, $1\frac{1}{2}$ miles from the latter, and $2\frac{1}{2}$ miles from the former station. The line slopes upwards from Rawtenstall to Bacup, on a gradient of 1 in 72, there being a piece of 1 in 132 at Newchurch station. One hundred yards on the east or Bacup side of the station is a signal cabin, 85 yards to the east of which a siding on the south joins the main line, another on the north joining it 20 yards further to the east. A tunnel, 165 yards long, commences at a point 95 yards east of the cabin, terminating 260 yards east of it; there is then an open space of 135 yards, and then another tunnel 300 yards long, the distance from the signal cabin to the eastern end of this second tunnel being 695 yards.

The signalman is provided with two distant signals; the one for up trains going westward, descending the gradient from Bacup, is 35 yards east of the eastern end of the first tunnel, or 295 yards from his cabin; it can be seen by an approaching train from a point 210 yards east of the second tunnel, or 610 off, provided this second tunnel is clear of steam, &c.; otherwise, from the west end of the second tunnel the view is limited to 100 yards. The other distant signal for down trains is 100 yards west of the cabin, i.e., at the east end of the platform, and forms the starting signal for trains going eastward, ascending the gradient.

Close to the eastern end of the second tunnel is a treadle on the south rail, connected with an electric bell in the signalman's cabin; this bell, when in order, informs the signalman when the last vehicle of a train going eastward (provided none of it has broken away) has cleared the tunnel, and similarly informs him of the approach of a train coming from Bacup. When the bell is in order no train is allowed to start from Newchurch until the preceding train has cleared the second tunnel, as indicated by the bell ceasing to ring; otherwise a five-minutes' interval is ordered to be kept between following trains.

The single line between Rawtenstall and Bacup is worked by a train porter, who, accompanying the last train, closes the traffic in any one direction.

On the morning of the 12th a goods train left Rawtenstall for Bacup at 9.30, by direction of the train porter, 15 minutes before the next passenger train was due to follow. The goods train reached Newchurch at 9.50, and, after picking up two waggons, started for Bacup, by permission of the signalman, with engine and tender, 18 loaded waggons, one empty one, and a break van, at 9.58, the passenger train being due out of Newchurch at 9.50, but not having yet arrived. The goods train started without

any great difficulty; the engine slipped a little in the second tunnel, and had just emerged from it, at a speed of about eight miles an hour, when the van (still in the tunnel) was run into by the engine of a following passenger train at about 10.2 or 10.3, at a point 650 yards from the signal cabin. The goods guard heard the train coming, and gave a whistle, but had no time to get out of his van; his leg and thigh were injured. The wheels of his van were all knocked off the rails, and three of its buffers were broken. No waggons were injured or left the rails.

The passenger train, consisting of a tank engine, running chimney first, three coaches, and a van, left Ramsbottom for Bacup at 9.42 a.m., 12 minutes late, Rawtenstall at 9.55, 10 minutes late, arriving at Newchurch at 10, leaving at 10.1, 11 minutes late, by permission of the signalman, who took off the starting signal.

The driver states that as he passed the signal cabin, the signalman shouted something to him (he did not understand what), and that he did not observe him give any hand signal; that the first tunnel was full of steam; that he could see nothing ahead in the second tunnel; and knew nothing about the goods train being in front of him until he heard the whistle of the goods guard; that he had just time to shut off steam and reverse before striking the van at a speed of 8 to 10 miles an hour.

Nothing left the rails in the passenger train, and the only damage done was the breaking of the buffer castings of the engine.

The signalman at Newchurch, an old servant of the Company, states that the goods train started for Bacup at about 9.55 a.m., five minutes after the passenger train (which had not yet arrived) was due to leave Bacup; that there was no room for the goods train in the Newchurch sidings, even had he wished to detain it to follow, instead of precede, the passenger train; that the electric treadle bell signal had got out of order on the previous Saturday (9th inst.), and that in consequence he had no means of knowing when trains had cleared the tunnel, but was working upon the five-minutes' interval system; that in conformity with this, he, at 10 o'clock, pulled off his signal to allow the passenger train to start, holding up five fingers to the driver as he passed the cabin (meaning that the train in front had been gone five minutes), and shouting this information to him. He further states that he thought it no use reporting the electric bell being out of order on the Saturday, and did not do so till the Monday evening (the day before the collision).

The station-master at Newchurch informed me that on his happening to go to the signal cabin on the Monday evening, the signalman informed him that the bell had not rung all that day, upon hearing which he at once telegraphed to Manchester, and that a man, on Tuesday morning, came out to repair it by the train, which met with the collision. It was again out of order when I visited the spot on the 19th ult., and I should infer, from the result of my inquiry, that it is a very uncertain signal.

This collision was caused by a most unsafe mode of

working the traffic, as regards following trains between Newchurch and Stackstead, the station next to Bacup. Even supposing the treadle bell always to be in working order, it would afford the Newchurch signalman no means of knowing whether the *whole* of a train going eastward had cleared the tunnel, and it would give no information at all to the signalman at Stackstead as regards trains proceeding westward towards Newchurch. The proper mode of working the traffic as regards following trains between Newchurch and Stackstead is by means of block-telegraph, and it is to be hoped that the occurrence of this collision may lead to its establishment without loss of time.

The signalman at Newchurch was much to blame, 1st, in waiting two days before reporting that the treadle telegraph bell was out of order; and, 2nd, in not giving the goods train a full five minutes' start of the passenger train, and also in not warning the driver of the latter, by means of his flag, that he had a train close in front of him.

In addition to the unsafe mode of working the traffic as regards following trains between Newchurch and Stackstead, above alluded to, there are other unsatisfactory arrangements at Newchurch, to which I think

it right to draw attention. In consequence of deficient siding accommodation, horses and carts have to stand on the main line in the process of loading from the trucks. The distant signal for trains approaching from Stackstead down a gradient of 1 in 72 is only 190 yards from the nearest siding points; supposing the second tunnel to be clear, the signal can be seen through it for a distance of 610 yards; but, in the case of following trains, when the signal would be most required, it would most probably be full of steam, &c., and the view would be limited to 100 yards.

To make the signal really useful it should be removed to the Stackstead end of the second tunnel, and provided with a repeater, electric or otherwise. A proper distant signal, worked from the cabin, is also required for trains approaching Newchurch from Rawtenstall, the present one being nothing more than a starting signal, for which purpose it could continue to be used.

I have, &c.,

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

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

Copies of the above report were sent to the Company.

LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade,
(Railway Department),
Whitehall, 30th April 1872.

Sir,

In compliance with the instructions contained in your minute of the 4th instant, 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 the 26th ultimo, about a quarter of a mile to the west of Middleton Junction Station, on the Lancashire and Yorkshire Railway.]

About a quarter of a mile to the west of Middleton Junction there are some sidings. These sidings are situated on a part of the Lancashire and Yorkshire Railway, which is called the Distillery Bank. The sidings are provided with home signals and distant signals, and are in the charge of a pointsman, who is stationed in a cabin called the Vitriol Cabin, which is situated at the west end of the sidings. On the day in question, a goods train, which consisted of an engine and tender and 18 waggons, was being shunted from the sidings at the north side of the passenger lines on to the line from Middleton to Manchester.

One of the coupling chains gave way during the operation. The passenger train which is due to leave Manchester at 6.15 a.m. for Normanton, arrived at the time, and was brought to a stand by the signals, which are worked from the Vitriol Cabin, which stood at danger.

The distant signal is 600 yards on the Manchester side of the Vitriol Cabin.

The passenger train consisted of an engine and tender, a guard's van with a guard, a second, a first, a second, two third, a composite, two third, a first, a second-class carriage, and a break-van with another guard, at the tail of the train.

Three carriages next to the front break-van and four carriages next to the last break-van were fitted with Fay's continuous breaks.

The van at the tail of the passenger train stood about 480 yards inside the distant signal, which was worked from the Vitriol Cabin, and about 30 yards

inside the Middleton Junction distant signal, which was likewise at danger. The passenger train had only stopped about one minute, when it was run into by a goods train, that is due to leave Oldham Road at 4.45 a.m. for Preston. This goods train consisted of an engine and tender, nine waggons, and a break-van with a guard.

It left Miles Platting, which is about four miles from Middleton, at 6.30 a.m. The driver got a caution signal, denoting that there was a train in front of him, as he passed Newton Heath Station, which is about a mile and a half to the west of the Vitriol Cabin. He stated, that owing to the morning being foggy, he did not see the Vitriol Cabin distant signal until he arrived close to it, when he observed it to be at danger. He was running at a speed of about 14 miles an hour at the time. He whistled for the signal to be taken down, but as it was not taken down, he reversed, whistled for the guard's break, and his fireman applied the tender break. The speed of the goods train was reduced to about 4 or 5 miles an hour, when it struck the passenger train. No persons were hurt, and no vehicles of either train left the rails.

The guard's van at the tail of the passenger train was slightly damaged.

The guard had just got out.

The accident was caused by the neglect of the engine-driver of the goods train from Oldham Road, who appears to have tried to whistle down the Vitriol Cabin distant signal, instead of stopping his train as soon as he noticed the signal to be at danger.

The night had been foggy, and the platelayers had been out all night fog signalling, but as the weather cleared up about 6 a.m. they left off signalling.

The fog does not appear to have been sufficient to prevent the driver seeing the signals, in ample time to stop his train, if he had chosen to do so at once.

I have, &c.,

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

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

Copies of the above report were sent to the Company.