

tion. The passenger train had the right of precedence, and the signalman, acting according to his regulations, would not allow the timber train to pass through the junction until the passenger train had gone forward out of its way. There was thus a block on the Liverpool line of three special trains, whilst the Preston passenger train was waiting for three minutes for the collection of tickets, and the position of the Lostock station was a most unfavourable one—on a steep gradient and sharp curve—for the detention of such trains.

There is a good deal of discrepancy between the statements of the guard of the special train from Wigan and the servants of the company with the excursion train as to the respective speed of the two trains. They are equally positive in their different assertions, and the truth lies probably somewhere between them. It is in any case plain that the engine driver of the excursion train had not sufficient warning of the obstruction before him to enable him to avoid the collision on the one hand, while the guard of the special train from Wigan would not, on the other hand, have had time, while his train was pulling up in obedience to the junction signals, to run back and to give proper notice of his danger to the driver of the excursion train which was following so closely after him.

According to the record book which is kept at the West Houghton station, it appears that the three trains passed that station, without stopping, at the following times :—

H. M.
The special timber train at 7 17
The special Wigan train at 7 18
The excursion train at 7 20

and it would not have been very unlikely, even without the check that was received by the timber train and the Wigan train at the Lostock junction, that the excursion train should overtake and come into collision with the Wigan train sooner or later after leaving West Houghton. The porter who was on duty at West Houghton as the excursion train passed was busily employed in shifting luggage from the up to the down side of the line, and did not give any warning to

the driver. He went into the porter's room to fetch his lamp for that purpose when he saw the excursion train coming, but he found when he returned to the platform that the train had already passed. The station-master was in the booking office, issuing tickets to passengers for the 7.21 train to Southport, and, having left the porter in charge of the platform, did not see the excursion train pass. The telegraph-clerk received at 7.17 notice of the excursion train having passed Hindley, two miles from West Houghton, at 7.16, and entered it on the train-slate on the platform, where the porter could have seen it at 7.17, as was his duty, but he did not mention the circumstance to anyone, nor was it usual for him to do so. The driver of the excursion train did not, therefore, any more than the driver of the Wigan train, receive any warning in passing West Houghton of a train in front, and the porter on the platform at that station certainly did not exercise the caution which he ought to have done in that respect.

There are altogether 34 trains in each direction passing West Houghton daily, besides from 4 to even 15 special trains, varying in number according to circumstances.

The company would do wisely in introducing at once a block-telegraph system of working on this line, with so heavy a traffic, severe gradients, and obstructed view ; and they might conveniently establish block-telegraph stations at Lostock Junction, at the summit at Chewmoor, half a mile from West Houghton, and at the West Houghton station. They should also re-organize the signal arrangements for the branches and sidings at Chewmoor, remove the distant signals to greater distances, furnish station signals at West Houghton, add a semaphore post with two arms between the Lostock Junction and the junction station, to be worked by the signalman and to protect the point of danger, which is some distance from the actual junction,—and provide locking apparatus with modern improvements and appliances at the junction.

I have, &c.,
H. W. TYLER.

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

A copy of the above report was sent to the company on the 10th November 1869.

LANCASHIRE AND YORKSHIRE RAILWAY.

*Board of Trade
(Railway Department),
Whitehall, 23rd November 1869.*

SIR,

I HAVE the honour to report for the information of the Board of Trade, in obedience to your minute of the 4th inst., the result of my inquiry into the circumstances which attended a collision that occurred on the 27th ult., on the Barnsley branch of the Lancashire and Yorkshire Railway, between a passenger and a coal train, on which occasion 16 passengers have complained of having been injured ; no bones were broken, but some persons were bruised and others were severely shaken. The guard of the passenger train was so seriously hurt that I was not enabled to see him.

There are two colliery sidings, named Craigs and Willow Bank sidings, about 400 yards apart, on the eastern side of the Barnsley branch; that lying nearest to Barnsley (Craigs siding) is situated nearly a mile from Barnsley station. Both sidings are protected by distant signals in each direction, with repeating signals to those towards Barnsley, owing to a curve in the line and two over bridges and some cuttings, which prevent the distant signals from being seen from the points which join the sidings to the main line, from whence they are worked.

On the 27th ult. a coal train, with 16 waggons on, left Barnsley for Horbury Junction at 11.45 a.m., its prope: time for leaving being about 11 a.m. It reached

Craigs Colliery siding at 11.50 a.m., and left, after taking on 16 waggons, at 12.3 p.m. It reached Willow Bank Colliery siding at 12.5 p.m., and had taken out 10 waggons and was ready and in the act of departing at 12.18 p.m., when it was run into by the 12.15. p.m. passenger train from Barnsley to Wakefield.

It was proved, and not disputed by the driver of the passenger train, that the signalmen at Craigs and Willow Bank sidings had put on their distant signals to "danger," as soon as the coal train reached Craigs and Willow Bank sidings, and that they had not taken them off before the collision took place. The coal train had taken longer than usual in bringing out the waggons at Willow Bank siding, the driver having attempted to take out too many waggons up the steep incline from the colliery at a time.

The distant signal worked from Craigs siding is about 900 yards from the spot at which the collision took place, and it can be seen for a long distance from a train advancing from Barnsley.

On this morning the passenger train consisted of engine and tender, running with the tender in front, and four carriages, the last having a guard's compartment fitted with a break and continuously coupled to other breaks on the other vehicles.

The driver states that he left Barnsley at the proper time and was running at his usual speed ; he believes the signals were on at "danger" against him,

but that he did not notice any until he reached Craigs siding, when he observed the coal train in front, and he then reversed the engine, whistled for the breaks, and did all in his power to stop, but was unable to pull up in the short distance (133 yards) on a falling gradient of 1 in 100 between the spot at which he first observed the coal train and the coal train itself.

In explanation of the cause why he had not observed the signals, he says that after leaving Barnsley, it being a bitter cold day, he was engaged in putting on his top-coat, and standing with his face to the chimney of the engine, and his back towards the tender; in other words, he was not keeping a look out at all. When running with the tender in front there is no shelter whatever provided for the men, and this is one of the grounds on which it is objectionable to run engines with the tender in front.

The fireman states that he was attending to the fire, and in consequence he did not observe the distant signals.

The collision was wholly due to the neglect of the driver and fireman, who evidently did not expect a coal train to be in their way so close upon Barnsley; but it is probable that it would not have happened if the engine had been running, as it should have been, with the engine in front.

The excuse given for running with the tender in front from Barnsley to Wakefield is that, as this train

is due to arrive at Wakefield at 12.43. p.m., and the engine has to leave with the train for Manchester at 1.15. p.m., there is not time, in consequence of the blocked state of the station, to turn the engine, an operation which would not take more than three minutes to perform, independent of the time occupied in getting to and leaving the turntable; and hence it is said to be necessary to run with the wrong end in front between Barnsley and Wakefield, so that the engine may be in front between Wakefield and Manchester.

I do not consider the explanation satisfactory.

The collision would not have occurred if the line had been worked with the assistance of the telegraph on the absolute block system.

The effect of the collision, which took place when the passenger train was running about 16 or 18 miles an hour, was greatly to damage the tender, breaking the framing, injuring the tank, breaking off the buffers, and throwing two of the wheels off the rails; one piston of the engine was damaged, and the advanced end of the third-class carriage next to the engine was stove in, two compartments were damaged, and the buffers were smashed. Four of the waggons and the break van of the coal train were also damaged.

I have, &c.,
W. YOLLAND,
Col.

The Secretary,
Railway Department,
Board of Trade.

A copy of the above report was sent to the company on the 13th December 1869.

LANCASHIRE AND YORKSHIRE RAILWAY.

1, Whitehall, S. W.,
30th Sept. 1869.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, the result of my inquiry, in compliance with the terms of your minute of the 3rd inst., into the circumstances attending a collision between two excursion trains which occurred at Shaw station on the Oldham and Rochdale section of the Lancashire and Yorkshire Railway on the 31st ult.

One poor woman is stated to have broken her leg in jumping out from one of the trains, and seventeen other passengers are reported to have been shaken and bruised.

Shaw station is approached from Oldham on a falling gradient of 1 in 192, extending for a considerable distance. The line is perfectly straight for about 600 yards next the station on the Oldham side, before which it curves. The station is provided with the usual main and distant signals. The former are low, and somewhat indistinct. The distant signal towards Oldham is situated about 700 yards from the main signal, and, in consequence of the curve, is visible from an approaching engine for a distance of only about 360 yards. There is a public road level-crossing at the Oldham end of the station, the gates being in charge of a man who also works the station signals.

Tuesday the 31st August was a great Oldham holiday, and no less than nine excursion trains, to convey altogether 6,700 passengers, were arranged to leave the Werneth station at Oldham at the following periods; viz., 4.40, 4.50, 5.0, 5.15, 5.30, 5.45, 6.0, 6.15, and 6.30 a.m., all to take up passengers at two other Oldham stations (Central and Mumps); some to stop at Shaw, and all to pass through it on their way to Rochdale, whence they were to diverge to their several destinations. Between these excursion trains there was also the ordinary passenger train from Manchester, due at Werneth station at 5.25, Mumps at 5.30, and Shaw at 5.37; the following excursion train being timed 5 minutes later, and not stopping at Shaw. On looking through the Lancashire and Yorkshire Company's excursion tables for August, I can find no other instance of anything like this number of trains following each other at such rapid intervals on the

same line of rails, and one would have accordingly expected that some very special precautions would have been taken between Oldham and Rochdale to maintain a safe interval between the following trains. The sequel will show to what extent this was done, so far as the two first trains were concerned.

Paragraphs to the following effect were inserted in the excursion time books for August:—

"The particular attention of station-masters, clerks in charge, signal-men, pointsmen, and all others concerned, is called to the proper signalling of the trains at their respective stations, when there are so many special trains upon the line. In order to ensure safety, the instructions of the Company must be *strictly observed* (in italics in the original), and care taken that the proper time is allowed to expire before the trains are allowed to follow each other past the various junctions and stations, or on any other part of the line. (See rules and regulations of the Company's Rule Book on this point.)"

"The speed of these trains not to exceed 20 miles an hour, including stoppages."

"You must have two good patent breaks, one in front and one at the end of your train, and two good breaks in the centre of the train." (To station-masters and guards.)

It appears from the evidence that the first excursion train, consisting of engine and tender, and 22 coaches, including a set of patent breaks, (three carriages to a set,) at each end of the train, and containing about 800 passengers, got away from the Werneth station, Oldham, for Scarborough, at 4.45 a.m., on the 31st ult., five minutes late; it lost time, however, at the two other Oldham stations, and left Mumps at 5.5 a.m. instead of 4.50, and was about 15 minutes late in arriving at Shaw (2 miles 1034 yards from Mumps), which it reached at 5.10, instead of 4.55, the time bill allowing only five minutes (including stoppage) for running this distance, requiring a speed of 31 instead of only the prescribed speed of 20 miles an hour. The driver and guards of this train both stated, that although there was some little fog hanging about the ground as they approached Shaw, the signals were visible at the usual points, and the train was stopped at the station, with its last car-