

ceed, which signal is given as frequently as possible; as, by stopping, the difficulty of surmounting a long heavy gradient, which occurs on the Leeds side of the station, is increased. On the present occasion, the driver, guard, and fireman, all assert that the station master gave them the signal to proceed, as they passed the platform; whilst the station master states positively that he gave them the signal to stop.

Lancashire and
Yorkshire
Railway.

I would beg in conclusion, to suggest for the consideration of the two companies that it might tend to the safety of the traffic at this junction, if all trains were in future ordered to stop, invariably, at the Knottingley station, a precaution which is perhaps the more necessary on account of the gradient of 1 in 150, which descends towards Knottingley from Leeds, extending to a distance of four miles from the former station.

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

I have, &c.

H. W. TYLER,

Lieut. R.E.

Inspector of Railways.

NORTH UNION RAILWAY.

*Railway Department Board of Trade,
Whitehall, November 10, 1853.*

SIR,

I HAVE been directed by the Lords of the Committee of Privy Council for Trade to transmit to you the inclosed copy of a report they have received from their inspecting officer upon the accident which occurred at the Euxton station on the North Union Railway, on the 24th August last, in consequence of an excursion train belonging to the Lancashire and Yorkshire Railway Company having come into contact with a goods train belonging to the London and North Western Railway Company.

It would appear from this report, that the accident in question occurred in consequence of the engine driver of the passenger trains having mistaken the signal at the junction, and supposed that the signal which was made to the London and North Western Railway train to advance was intended to apply to his train. This mistake would appear to have occurred in consequence of the engine driver not having been familiar with the line, as he had only travelled over it once before, on which occasion he was also in charge of a passenger train. It would also appear that the fireman who accompanied him on both occasions was not familiar with the line.

My Lords direct me to request you to point out to the directors of the Lancashire and Yorkshire Railway the great responsibility which must rest upon them if accidents occur, which, it would appear, are attributable to the fact, that trains are run upon the line in charge of engine drivers who are not well acquainted with the road.

My Lords are also desirous that the attention of the directors of the Lancashire and Yorkshire Railway should be called to the recommendation of their inspecting officer, that in the case of all extraordinary trains on the line, the servants of the company should be furnished with time tables, showing the times at which the trains should pass or stop at all stations on the railway; and also that all those servants of the company who, by the regulations, are required to note the intervals of time, should be supplied with timepieces.

*The Secretary of the
Lancashire and Yorkshire Railway Company.*

I have, &c.,

JAMES BOOTH.

*Railway Department, Board of Trade,
Whitehall, November 10, 1853.*

SIR,

I HAVE been directed by the Lords of the Committee of Privy Council for Trade to transmit to you the enclosed extract from a report they have received from their inspecting officer upon an accident which occurred at the Euxton station of the North Union Railway, on the 24th August, in consequence of a passenger train belonging to the Lancashire and Yorkshire Railway Company having come into collision with a goods train belonging to the London and North Western Railway Company.

North Union
Railway.

My Lords direct me to request you to call the attention of the committee of management of the North Union Railway to the recommendation of the inspecting officer, respecting the erection of auxiliary signals at this junction.

*The Secretary of the
North Union Railway Company.*

I have, &c.
JAMES BOOTH.

SIR,

November 7, 1853.

I HAVE the honour to inform you that I have inquired into the circumstances connected with the accident which occurred at the Euxton junction on the North Union Railway, on the 24th August, in which an excursion train belonging to the Lancashire and Yorkshire Railway Company came into collision with a luggage train belonging to the London and North Western Railway Company.

It appears that a special excursion train was advertised to leave Leeds for Blackpool at six A.M. on the morning of the 24th, and that due notice of this special train was given to the station masters on the line according to the form in use—a description of which I have appended.

This notice states the hour at which the train is to start from the initial station and its destination, the stations at which it is to stop for passengers or for examining tickets, but not the hours at which it is to stop at such stations; it being understood, as I was informed, that the excursion trains are to travel at a speed of eighteen miles an hour, and that the station masters, signalmen, &c., calculate the time of the expected arrival of the trains upon this assumption.

The excursion train consisted of two first-class carriages, one composite carriage, and seventeen second and third-class carriages. A guard's van was behind, in which a guard rode. There was another guard with the train who was on the seventh carriage from the front. This carriage, as well as the eighth carriage, was supplied with breaks.

The times at which the excursion trains arrive at or depart from such stations on their journey as they are required to stop at, is not recorded by the guards of the trains. The time at which they depart from the several stations is, however noted at the stations, in a book kept by the station masters.

The train in question left Leeds at	-	6 . 5 A.M.
Mirfield, twelve miles distant from Leeds at	-	7 . 0 "
Brighouse, fifteen miles	"	7 . 20 "
Sowerby Bridge, twenty-one miles	"	7 . 55 "
Todmorden, thirty-one miles	"	8 . 30 "

At these stations it stopped to take up passengers. It called for water at Rochdale, which is thirty-nine miles from Leeds, and started again at 9.35, and took water at Bolton, which is fifty-two miles from Leeds, and started again at 10.0 A.M. From Bolton the line rises for five miles at an inclination of about 1 in 380, and is thence level to Chorley, which is about twelve miles from Bolton. The line then falls to Euxton, which is between two and three miles from Chorley; the gradient near to the Euxton station being 1 in 107.

The Euxton station is about fifteen miles from Bolton, or sixty-seven miles from Leeds, and the excursion train appears to have arrived there between 10.30 and 10.35 A.M. The Euxton station is situated at about 200 yards on the Bolton side of the junction, where the Bolton and Preston branch of the North Union Railway joins the Warrington and Preston branch of the same railway, and the Euxton station is protected in the direction of Bolton by means of a distant signal. At the junction there are two semaphore signals, which are close together but of different heights, and they are each set so as to face the direction of the line to which they are intended to apply. There are no distant signals to protect this junction. On the Lancashire and Yorkshire Railway it is the custom to protect all junctions by means of distant signals, and in most cases there are no semaphore signals at the junctions, which are therefore then protected by distant signals alone. The engine driver of the excursion train states, that on approaching the distant signal on the Bolton side of the Euxton station, he saw that it was turned off, and that as he had only travelled along that road once before, he mistook this signal for the junction distant signal. After he had passed it, he observed the junction semaphore signals set at "stop," and on sounding his whistle, one of them was lowered, and assuming that it was

for him he went on. It appears, however, that at the same time that this excursion train was approaching, a goods train belonging to the London and North Western Railway Company was also approaching the junction from Warrington; and the signal which was lowered was the one which belonged to the Warrington and Preston line. The goods train consequently advanced; and as this part of the line is in a cutting, the driver was quite unaware of the approach of the excursion train. The engine of the goods train had just passed clear of the junction when the other train came into collision with it.

The goods train consisted of forty-seven waggons and one break van, and it was accompanied by one guard; it was what is called the goods train from London for Preston and Scotland. It is timed to travel from Rugby to Preston, a distance of 127 miles, in eight hours and thirty-five minutes, of which time one hour and thirty minutes is consumed in stoppages; and therefore its running speed, without allowing for the time lost in stopping and starting the train, is between twenty-six and twenty-seven miles an hour.

I have to observe, with respect to this, that the amount of break power sent with this train does not appear to have been sufficient for safety, especially upon a line which is traversed, as is the London and North Western Railway, with numerous passenger and other trains at different rates of speed; the number of the guards sent with the trains should also be increased in proportion to the additional number of breaks. This deficiency of break power, however, was not in any degree a cause of this accident. The main cause of the accident which occurred would appear to have been the mistake which the engine driver of the Lancashire and Yorkshire train made respecting the signal at the junction. This man had only travelled on this part of the line once before, and he had been accustomed on other parts of the line to see the junction protected by distant signals. In the present case the Euxton station, which is at a very short distance from the junction, is protected by a distant signal, but the junction itself is only protected by semaphore signals; and as the working of the station and junction are independent of each other, and as no impediment existed at the station, no signal was exhibited from the station to stop the train. From an examination of the scene of the accident, I am of opinion that although the semaphore signals at the junction are visible for some distance, and although there does not appear to be any cause, from the position of the signals, for mistaking the signal for one line for that of the other line, it is necessary for the safe working of this junction that a distant signal should be erected in the direction of Chorley; and, inasmuch as high ground intervenes between the line to Chorley and the line to Warrington, I would recommend that a distant signal be erected also, to protect this junction from trains approaching in this latter direction. A distant signal towards Preston is also desirable. These distant signals should be always exhibited to stop trains except when turned off to allow a train to pass.

The mistake as to the signal by the driver, appears, however, to have been owing to the fact that he was ignorant of the road as he had only travelled on the part of the line in question once before; and it would appear that on the first occasion when he travelled over the line, which was a fortnight before the occurrence of the accident, he was driving an excursion train; the fireman who accompanied him on both occasions had only been over the line once before, and that two years ago. It appears to me to be a most dangerous and reprehensible practice to send trains, especially trains which are timed to pass stations without stopping, in charge of men unacquainted with the road; and a great degree of the responsibility connected with this accident must rest upon the officers of the company who made so objectionable an arrangement. In the present instance, as it would appear that the company had two days' notice at least of the departure of the excursion train, there can not have been any excuse for this arrangement.

The notices which are issued respecting the excursion trains on the Lancashire and Yorkshire Railway, do not specify the times at which the trains should pass or stop at the several stations on the line; but it is stated that this can be calculated as the train ought to travel at eighteen miles per hour. In the present instance the train appears to have travelled between Leeds and Euxton at between fourteen and fifteen miles an hour; but it would appear to have travelled at a slower speed than this on parts of the line; this speed, however, was inclusive of stoppages, and inasmuch as the stoppages must be taken into

North Union
Railway.

account, the statement that the speed is to be eighteen miles per hour does not define with sufficient accuracy the time at which the several station masters, signalmen, and others along the line are to expect the excursion train. There does not, however, appear to be any reason why special excursion trains (especially those of which one or two days' notice is given) should not be furnished with a time table as definite as that of ordinary trains, showing the times at which the train is to stop at or pass every station; and the guards and engine drivers should send in reports to the superintendent of the actual time of passing all stations and account for any delays.

It would appear that the guards on the Lancashire and Yorkshire Railway are not supplied with watches by the company, although they are required to note the times at which the ordinary trains stop at and start from the several stations. On the present occasion neither of the guards possessed a watch.

I would recommend that arrangements should be made to furnish the guards with watches, as they cannot otherwise be expected to comply strictly with the above regulation, which it is very desirable they should do, as its observance tends to promote habits of exactness and punctuality.

I have, &c.,

DOUGLAS GALTON,

Captain Royal Engineers.

The Secretary of the

Railway Department, Board of Trade.

*Lancashire and Yorkshire Railway Secretary's Office,
Manchester, November 21, 1853.*

I HAVE duly submitted to the directors of this company Mr. Booth's letter of the 10th instant, enclosing copy of a report of Captain Galton, R.E., upon the accident which occurred at the Euxton junction, on the North Union Railway on the 24th August last, and drawing attention to the leading suggestions which have emanated from that officer.

With respect to the non-familiarity of the engine driver and fireman with the line traversed by the excursion train, I am to state that the directors have issued such instructions as appear to them necessary to meet the case, and at the same time to fulfil the intentions and wishes of my Lords of the Privy Council for Trade.

On the subject of the issue of time tables in the case of extraordinary trains, I am to point to the fact that care is taken to supply each station with a time table constructed upon the same principle as the ordinary time tables, according to which the regular daily traffic is worked, and so framed as to avoid the inconvenience and uncertainty which would attend the publication in a table of hours of arrival at or passing stations where stoppages were not intended.

In reply to your concluding remark, I beg to state for the information of my Lords, that orders have been given and are now in course of execution for a supply of timepieces to be used by such of the company's servants as are placed in a position to require them.

I have, &c.,

JOHN DUNSTAN, jun.,

Secretary.

To the Secretary of the

Railway Department, Board of Trade.

*Railway Department, Board of Trade,
Whitehall, November 25, 1853.*

SIR,

I HAVE been directed by the Lords of the Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 21st instant, upon the subject of the accident which occurred at the Euxton junction on the North Union Railway on the 24th August last, from a collision between an excursion train belonging to the Lancashire and Yorkshire Railway Company and a goods train belonging to the London and North Western Railway Company.

My Lords direct me to express their satisfaction at learning that the directors had made arrangements for supplying timepieces to those servants of the company

whose duties require them, and that they have issued such instructions as will prevent engine drivers who are not familiar with the road from being sent in charge of trains.

With respect to the remarks upon the alleged inconvenience of issuing time tables exhibiting the hours at which trains are to pass stations when stoppages are not intended, my Lords direct me to transmit for the consideration of the directors of the Lancashire and Yorkshire Railway some additional observations which they have received from their inspecting officer upon the subject.

*The Secretary of the
Lancashire and Yorkshire Railway Company.*

I have, &c.,
JAMES BOOTH.

*Railway Department, Board of Trade,
Whitehall, November 23, 1853.*

SIR,

I HAVE to acknowledge the receipt of the minute of the Lords of the Committee of Privy Council for Trade, referring to me the letter of the 21st instant, from the Lancashire and Yorkshire Railway Company, upon the subject of the accident which occurred at the Euxton junction on the North Union Railway on the 24th August, for any remarks I may have to offer thereon.

I am desirous of submitting a few remarks upon the observations in the third paragraph of the letter.

It is stated that care is taken to supply each station with a time table constructed upon the same principle as the ordinary time table, according to which the regular daily traffic is worked, which is framed to avoid the inconvenience and uncertainty which would attend the publication in a time table of the hours of arrival at or passing stations when stoppages are not intended.

The time tables which were shown to me as being those supplied to the station masters, &c., exhibited the hour of departure of the trains from the station at which they originate, and the names of the stations at which they were to stop; but the times of stopping at these intermediate stations were not mentioned; it being assumed as was stated to me, that the excursion trains would travel at eighteen miles per hour, and upon this assumption the station master were to calculate their expected time of arrival. These excursion trains travel over a very great length of line, and in addition to having to stop to take up passengers they have also to stop for water, and these delays must all tend to cause an uncertainty in the actual time of arrival of the trains at the several stations, and must consequently introduce a great element of uncertainty into any calculation which the station masters might make as to the expected time of arrival of the trains. In the instance in question the train did not arrive at Euxton until about three quarters of an hour after the time at which it should have arrived, had it travelled from Leeds at an uniform rate of eighteen miles an hour.

If a line of railway be traversed by numerous trains at different rates of speed, and if these trains are worked to carefully regulated time tables, it is not consistent with safety that extraordinary trains should be despatched along it, unless the times at which they are to pass the stations be also carefully defined; and moreover the safety of the trains upon such a line depends to a great degree upon an accurate adherence to the time tables. An adherence to the time tables will be best secured by furnishing the servants of the company who are in charge of trains, as well as the servants at the stations, with a list of the stations which the trains are to pass, as well as of the times at which they pass them, and by causing the times at which these places are actually passed to be carefully noted, in order that all delays and irregularities may be accounted for. Such a system would render it imperative upon the servants of a railway company to pay a strict attention to time, and would thus habituate them to punctuality, and to the due observance of the intervals of time which are necessary to be maintained between the passage of trains, in order to secure safety under the system of working which is in force on the Lancashire and Yorkshire Railway.

It is upon these grounds that I founded my recommendation, that the time tables should be so framed as to exhibit the times at which the ordinary trains

are to pass all stations on the line ; and that time tables should be furnished for special or extraordinary trains, containing information in every respect equal in amount to that supplied respecting ordinary trains.

James Booth, Esq.,
 &c. &c.

I have, &c.,
 DOUGLAS GALTON,
 Capt. Royal Engineers.

CALEDONIAN RAILWAY.

SIR,

Railway Department, Board of Trade,
Whitehall, February 24, 1853.

Caledonian
 Railway.

I AM directed by the Lords of the Committee of Privy Council for Trade, to transmit to you for the information of the Directors of the Caledonian Railway Company, a copy of a report that has been made to them by the officer appointed to inquire into the circumstances which attended a collision that occurred on the Hamilton branch on the 17th January.

My Lords direct me to observe, that it appears that this accident is attributable entirely to the want of due precaution on the part of the superintending officers of the company to secure the safety of trains, during the period in which it might be necessary to use the Hamilton branch as a single line of railway.

My Lords direct me to express their hope that the Directors will issue such regulations as will effectually prevent the recurrence of any accidents of a similar nature to that which is the subject of the enclosed report, whenever it becomes necessary to use any part of their railways as a single line, and more especially as such accidents are of the most dangerous character.

J. L. A. SIMMONS,

Captain Royal Engineers.

The Secretary of the Caledonian Railway Company.

SIR,

February 12, 1853.

I HAVE the honour to acquaint you, for the information of the Lords of the Committee of Privy Council for Trade, that I have inquired into the circumstance attending a collision that occurred on the 17th ultimo on the Hamilton branch of the Caledonian Railway, near the Blantyre station, between a coal train and a passenger train.

It appears that on the 27th December a lofty embankment between the junction and the Blantyre station, showed symptoms of slipping, which rendered it necessary to confine the traffic to one line between the junction and Blantyre Station, a distance of something more than two miles.

The superintendent of the line came down to the spot as soon as he heard of the impending danger, and decided that the up line between the points I have indicated, should be used exclusively for the ordinary traffic of the line each way ; and to guard against the danger of collision from trains proceeding in different directions over the single portion of the line, he directed the inspector of police to appoint a pilotman to accompany every engine in its passage over the single line. The inspector of police appears to have carried out these orders in a very loose manner, arising, in my opinion, from his not fully understanding the principle of safety involved in the appointment of a pilotman ; for he did not think it necessary that the pilotman should accompany the mineral and goods trains, of which there is sometimes one and sometimes two each way, and the times of which in starting and arriving are extremely irregular. The reason he gave for not doing so was, that the length of the single line was so great that he could not have done it without deranging the traffic and causing delay. He, therefore, preferred trusting to the driver of the mineral train making a communication to the pointsman at the junction, when he was proceeding from Glasgow to