

to Edinburgh with a goods train a few months since, near the Trinity Station; and it did so, not, it is said, from any defect in the engine itself, but in consequence of the fracture of a rail.

I may observe, in conclusion, that within 50 yards of the same spot, I found, during my inspection of the site of the accident, a joint key half out of its chair, and in a position which might have led to a similar occurrence. I see no reason to attribute the present accident to such a cause; but, on the contrary, from the absence of any mark upon the edge of the rail which is said to have been the one on which the engine wheel first mounted, and for other reasons, I think that it was not thus occasioned; yet I would remark, that the great liability to accident, which always exists where the joints of the rails are secured with the ordinary cast-iron chairs and wooden keys

only, ought to induce the directors of the Company' not only to prohibit the further use on their line of the objectionable joints to which I have referred, but also to substitute one of the improved methods for securing the joints that have been so extensively brought into use of late years, for the more ordinary mode which is adopted upon this curve.

I believe that they have already commenced to make an improvement of this sort in their tunnels; and if they were to extend it over the remainder of their line, they would find it to be economical in the end, and they would have more safety and more satisfaction in every respect in the working of their traffic.

I have, &c.

*The Secretary,
Board of Trade,
Whitehall.*

II. W. TYLER,
Capt. R.E.

GREAT NORTHERN RAILWAY.

*Railway Department, Board of Trade,
Whitehall, 18 July, 1860.*

Sir,

I am directed by the Lords of the Committee of Privy Council for Trade to transmit to you for the consideration of the directors of the Great Northern Railway Company, the enclosed copy of the report made by Captain Tyler, R.E., of his inquiry into the circumstances attending the collision which occurred on the 4th ultimo near the Holbeck Station on the Leeds, Bradford, and Halifax Railway, between a Great Northern passenger train and a Lancashire and Yorkshire goods train.

I am, &c.

JAMES BOOTH.

*The Secretary to the
Great Northern
Railway Company.*

*Railway Department, Board of Trade,
Whitehall, 18 July, 1860.*

Sir,

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 Lancashire and Yorkshire Railway Company, the enclosed copy of the report made by Captain Tyler, R.E., of his inquiry into the circumstances attending the collision which occurred on the 4th ultimo, between a Great Northern passenger train and a Lancashire and Yorkshire goods train at the Holbeck Station of the Leeds, Bradford and Halifax Railway.

I am, &c.

JAMES BOOTH.

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

Sir,

Leeds, 12 July, 1860.

In compliance with the instructions contained in your minute of the 25th ultimo, I have the honor to report, for the information of the Lords of the Committee of Privy Council for Trade, the result of my inquiry into the circumstances which attended the accident, that occurred on the 4th ultimo, near the Holbeck Station of the Leeds, Bradford, and Halifax Railway.

This station is about half a mile from the central station at Leeds on the one side, and about the same distance from a triangle on the other side, at which the lines from Wakefield on the south-east, and from Bradford on the west, meet. These two lines are also connected by a portion of railway, 450 yards long, which forms the third side of the above triangle. There are three junctions, one at each angle of this triangle, which may respectively be denominated, the Leeds Junction, the Wakefield Junction, and the Bradford Junction. At the first there is a signalman by day as well as by night; but at the two others there is a signalman by day only.

Bells and arms, worked by wires from junction to junction, are provided in the boxes of the three signalmen, as means of communication, for the safer working of the traffic by day; and the *switches* at the Bradford and Wakefield Junctions are secured by the signalmen on duty at those junctions, by chairs, keys, and screw-bolts, provided for the purpose, when they leave their work at night. The wires, also, which are employed for communication with those signal-cabins by day, are at the same time respectively connected, with a distant signal on the Wakefield side of the triangle, and with one of the main signals of the Bradford Junction, to act as a distant signal, — for the use of the signalman at the Leeds Junction by night.

A distant signal, at 400 yards from the Holbeck Station, is worked towards the Leeds Junction by one of the porters, who acts as signalman at that station by day, and from the box of a signalman nearer to Leeds after 11 o'clock at night.

The gradients on the approach to Leeds from Bradford are very severe, falling 1 in 50 for nearly a mile and a half from Armley, then 1 in 400 for 300 yards to the end of the Holbeck platform, and finally 1 in 100 for 600 yards down to the level portion on which the yard of the Central Station stands.

The Central Station is a joint station between the Lancashire and Yorkshire and the Great Northern Railway Companies; but the junctions above-mentioned, and the Holbeck Station, are worked by the servants, and under the control of the officers of the Great Northern Company.

A Great Northern excursion train from London, consisting of an engine and tender, twenty passenger carriages, and two break vans, was standing at the Holbeck Station, at the foot of the long falling gradient of 1 in 50 above referred to, on the 4th June, a little before 11 o'clock at night, while the tickets were being collected, when a goods train of the Lancashire and Yorkshire Company, consisting of an engine and tender, eight loaded and 24 empty waggons, and two break vans, which was following it on the same line of rails, came into collision with it. The speed of the goods train was not great, but its momentum was considerable, on account of its weight, and, unfortunately, twenty-five of the passengers in the excursion train were injured, as that train was pushed forward for a distance of six or seven carriage lengths, or, perhaps, for 40 or 50 yards towards Leeds.

This excursion train started from the King's Cross Station, in London, at 1.35 p.m. on the same day, twenty minutes after its proper time, and was intended to have joined the ordinary train at Knottingley, and to have left that place at 7.45 for Leeds; but it was an hour and a half late, in consequence of the unexpected number of the passengers that travelled by it;

and it was therefore sent on to Leeds as a special train. It reached the Holbeck Station, where the tickets were to be collected, at 10.40, according to the guard, but rather later according to the statement of the signalman at the Leeds Junction, nearly two hours after the time at which it was expected to arrive. Three or four of the vehicles of which it was composed extended beyond the platform towards the Leeds Junction; two side lamps and a tail lamp were burning brightly on its hind van; and it was under the protection of the Holbeck distant signal, which was turned to "danger," 400 yards behind it, when it was run into, as I have already described, by the goods train of the Lancashire and Yorkshire Company.

The porters on the platform at which it was standing were all busily engaged in collecting the tickets, and were not aware of the approach of the goods train until they heard or felt the shock of the collision; but a porter and two passengers who were on the opposite platform, waiting for a train which was overdue, saw the goods train coming down the incline at a speed which they thought was too great to admit of its being pulled up in time. The porter, accordingly, went back with his hand-lamp, and gave an additional signal to the driver, who could not then, however, do anything more towards arresting the onward progress of his heavy train.

The head-guard of the excursion train between Knottingley and Leeds was a porter from King's Cross, who had acted as second guard between London and Knottingley; and the second guard was a porter from Knottingley. They were both men of experience; but it is desirable that trains of this nature should be accompanied by at least one regular guard in the service of the Company. The porter who acted as head-guard on the occasion has been in the habit of performing guards duty "almost daily" for three years, summer and winter, with one train "or another;" and, this being the case, it would appear that the regular guards in the employment of the Great Northern Company can hardly be as numerous as is desirable for the proper working of the line.

The goods train left Manchester punctually at 6.30, p.m., and Low-Moor rather after its proper time; but it was a heavy train, and was nearly an hour late in arriving at Holbeck. It did not stop anywhere between the two latter stations. The tender-break, and the break of the hind van, were applied in passing the Armley Station, and were kept on all the way down the falling gradient of 1 in 50 between that station and Holbeck. The Bradford Junction was closed, as is usual at that time of night; the signals at the Leeds Junction, which are never placed at "all right," were at once lowered to "caution," in answer to the engine whistle; and it was only after passing the Leeds Junction Cabin, that the driver was able to distinguish the red light of the Holbeck distant signal, which he found at "danger." His own statement is, that he then first whistled for this signal to be lowered, and that, finding it kept up against him, he at once whistled for the break of the front guard, in order to make sure of that break, if it should not have been previously applied. As he passed the Holbeck distant signal, he noticed the lights at the tail of the excursion train; and he then reversed his engine, and used his best exertions to bring his train to a stand.

It appears that the leading guard did not apply his break between Armley and the Leeds Junction because the train was travelling very slowly, but kept it in reserve according to the usual practice. On passing the junction box, however, he saw the Holbeck distant signal at "danger," and he turned it on at once before the driver whistled for it.

The signalman at the Leeds Junction states that the goods train passed him at a speed of 14 or 15 miles an hour, and was unusually heavy, but that he did not consider that it was travelling too fast, or

think it necessary to give any warning signal to the driver, though he was aware that the excursion train was standing at Holbeck, only 800 yards in front of him; and he says that the goods driver did not whistle for the breaks till he was half way between the Holbeck distant signal and the Holbeck station, or within about 200 yards of the excursion train.

The servants of the Lancashire and Yorkshire Company, who were with the goods train, estimate their speed as they passed the junction in question at seven, eight, or nine miles an hour; and the driver blames the signalman for not having shown him a green light from his hand-lamp, to warn him of the unusual obstruction which was in front of him. It may not have been strictly the duty of the signalman to give him such a signal, looking to the practice of the Junction, and considering that the distant signal was at danger for the special protection of the excursion train; but the signalman would certainly have exhibited more zeal in the performance of his duty, and would only have taken a precaution which might fairly have been expected of any man at such a post and under such circumstances, if he had thus made use of his hand-lamp. Indeed, if the speed of the goods train was anything like what he estimates it at—which can hardly have been the case—it was most necessary for him to do so, as the danger would then have been imminent to the vast number of people who were in the train below.

The signalman may not be quite correct in saying that the driver waited until after he had passed the Holbeck distant signal before he whistled for the breaks; but the driver did not, on his own showing, at once do his best to pull up his train in obedience to the Holbeck distant signal, on seeing that signal at "danger." His first impulse after the accident was to accuse the leading guard of not applying his break; but he might have reversed his engine at an earlier period, and would, no doubt, have done so, if he had been at all aware of what was before him.

He says that there has been some little irregularity at times in the working of the Holbeck distant signal, that that signal is not sufficient protection for this station on so heavy a gradient, and that if there had been an ordinary train at Holbeck instead of this long excursion train, he would have been able to pull up his train 30 or 40 yards from the tail of it.

He is a driver of 9 years standing, and he knew the locality perfectly well. Having been aware that the signal was an insufficient one he ought to have approached it with the greater caution, and to have been more careful in at once attending to it. It was, no doubt, his misfortune to meet with a long passenger train on this occasion, in a position where he did not expect it to be at that time of night, whilst it was his fault not to be better prepared for such a contingency; and he is therefore partly to be pitied, at the same time that he must be blamed.

But he is quite right in saying that the Holbeck distant signal is not a sufficient protection for the station. Being not much more than 400 yards from the platform, and being only visible, or rather distinguishable, at night, for less than 400 yards further, it affords, of itself, but an inefficient warning to a driver conducting a heavy train down a gradient of 1 in 50, over a line on which the traffic is enormously heavy. I recommend, therefore, that the Leeds junction and the Holbeck station be connected together by a means of communication similar to those already provided between the three junctions of the triangle to which I have before referred, of which the Leeds junction forms one angle; and that the signalman at that junction be always employed for the future in extending to a greater distance from Holbeck the warnings that have hitherto been too exclusively entrusted to the distant signal in question.

I may add, that if the Great Northern Company could make arrangements for collecting the tickets

of their passengers on some less dangerous portion of the line, it would be a great advantage, and would be a means of obviating some risk which must otherwise always be incurred.

I have, &c.

*The Secretary,
Board of Trade,
Whitehall.*

H. W. TYLER,
Capt. R. E.

*Lancashire and Yorkshire Railway,
Secretary's Office,*

SIR, *Manchester, August 9th, 1860.*

I HAVE submitted to my directors the report from Captain Tyler, R.E., enclosed in your communi-

cation of 18th July ultimo, on the subject of an accident at the Holbeck Station on 4th June last, and by their directions I have written to the Leeds, Bradford, and Halifax Railway Company, calling upon them at once to make the alterations in the signals at or near the Holbeck Station suggested by Captain Tyler.

I am, &c.

*To the Secretary of the
Railway Department of the
Board of Trade.*

WM. S. LAWN,
Secretary.

LANCASHIRE AND YORKSHIRE RAILWAY.

*Railway Department, Board of Trade,
Whitehall, August 20th, 1860.*

SIR, I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you, for the consideration of the Directors of the Lancashire and Yorkshire Railway Company, the enclosed copy of the report made by Colonel Yolland, R.E., of his inquiry into the circumstances attending the collision which occurred on the 10th ult., at the Wigan Station.

I am, &c.

J. E. TENNENT.

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

10.40 A.M., the whole of these trains are turned, as a matter of course, from the main through line into the up siding alongside of the platform.

On the 10th July, the Southport train arrived at Wigan station at 10h. 30m., and was turned by the pointsman from the main line to the up siding, and the engine of this train was immediately disconnected and run ahead, to allow of the Liverpool train, due at 10h. 32m., passing ahead of it, and on the up main line, and then being shunted back into the up siding, in front of the Southport train, so as to be made up into one train before proceeding eastwards.

The Liverpool train, consisting of 5 carriages and 2 break vans, and 2 guards, arrived at 10h. 40m., and the pointsman informed me that he forgot that the Southport train was standing alongside the up platform, and in consequence of such forgetfulness he opened the points for the siding, and the train entered and ran into the Southport train.

The collision does not appear to have been a severe one, as little damage was done to the rolling stock, and the injuries to the passengers are represented as not being of a serious nature.

No blame appears to be attributable to the driver and guards of the Liverpool train; but I do not consider that the arrangements at the junction are by any means good, and the junction itself is a dangerous one.

I am of opinion that this kind of accident would not occur if the whole of the points and signals at the junction were under the control of one experienced signalman, so placed, that he could see all the points from his stage. This might readily be effected by carrying a stage for the signalman over the line, west of the over-bridge, and by introducing those mechanical arrangements which have been adopted for junction signals in the south of England, which require that the points shall be set right before the signal can be lowered, and by preventing the signalman from showing two all right signals at the same time that might lead to a collision.

If the Company cannot accede to this proposal, then, in my opinion, the pointsman should be placed east of the over-bridge where he can see the points he has to work; but the advantages are altogether in favour of my first recommendation, to allow the duty to be done by one instead of two men.

The pointsman who made the mistake on the 10th July had only been employed at that duty for fourteen days, and was only in the Company's service since the beginning of April. I do not by any means excuse his neglect, but cannot consider that he had a fair chance of doing his duty properly.

I have, &c.

W. YOLLAND,
*The Secretary to the
Lancashire and Yorkshire
Railway Company.*

*Railway Department, Board of Trade,
Whitehall, August 13th, 1860.*

SIR, I HAVE the honour to state for the information of the Lords of the Committee of Privy Council for Trade that, in compliance with your minute of the 1st inst., I have inquired into the circumstances which attended a collision that occurred at the Wigan Station of the Lancashire and Yorkshire Railway, on the 10th July, between two passenger trains, by which six persons were slightly injured.

This station has been recently re-arranged. The passenger platforms are now situated alongside of sidings, lying east of the over bridge which carries the London and North-western Railway over the Lancashire and Yorkshire Railway, and on the west side of this bridge the lines belonging to this Railway Company from Liverpool and from Southport unite and form a junction, which is protected by distant and junction signals. The signal box at which these signals are worked is situated on the west side of the over bridge before referred to, and between this signal box and the over bridge, and on the same level with it, there is a raised stage from which five pairs of points, situated on the eastern side of the over bridge, are worked—including among that number a pair of facing points which serve to turn an up train from the up main line to the siding and up platform lying north of it. The pointsman who works these five pairs of points labours under the great disadvantage of not being enabled to see any one of these points while he holds them, and of course he cannot tell, except from recollection, whether they are closed or not.

Since the re-arrangement of this station the junction signals and points have been attended to by one man, and another works the five pairs of points above alluded to.

Up to the time of this accident 18 up passenger trains passed through the station daily—11 from Liverpool and 7 from Southport, and, with the exception of two which are appointed to arrive from Southport and Liverpool respectively at 10.30 and