

The
VIRTUAL MUSEUM
of the
LANCASHIRE & YORKSHIRE RAILWAY

Accident Reports.

25 May 1861

BoT Report into Accident at
Mill Hill.

(3 Pages).

SIR, *Hampton Court, 1st June 1861.*

IN compliance with the instructions contained in your minute of the 11th ultimo, I have the honour 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 collision, that occurred on the 10th ultimo, at the Victoria Station at Manchester, on the Lancashire and Yorkshire Railway.

The east end of the Victoria Station is approached on a steep incline, a mile and a quarter long, containing gradients of 1 in 49, and 1 in 59, over which a very heavy traffic is conveyed, and which succeed other falling gradients of a less severe description. At the top of this incline, at the Miles Platting Station, several special weighted vans are kept in readiness for the use of goods trains, excursion trains, or other heavy special trains requiring them, that they may assist, by means of the breaks attached to them, in checking the speed of such trains, as they descend upon the station below; but these break-vans are not employed with the ordinary passenger trains, which are supposed to be sent off from the stations at which they are made up with a sufficient proportion of break-power to meet this contingency, and to descend the incline in question with safety under all circumstances in which due care and circumspection are employed on the part of the servants of the company who are placed in charge of them.

On the day referred to, the 5.55 a.m. passenger train from Normanton to Manchester started from Normanton at its proper time, and, after stopping at various intermediate stations, left Miles Platting in due course at 8.55. It was composed, in the following order,—of an engine and tender, 3 waggons loaded with fish, 8 passenger carriages, and 1 break-van. It ought, by the regulations of the company, or rather in obedience to an order which was issued many years ago, and which appears to have been well understood, and is well remembered, to have been provided with at least two break-vans, because it contained more than 11 vehicles. The guard of the train had, in consequence of its size, applied at Bradford, (which was the proper station for such an application,) for a second break-van, but had not been able to obtain one. The station master was away from the station at the time, and the porter in charge of it informed him that there was not one for him.

He therefore proceeded forward with only one break-van to Rochdale, which is 10½ miles from Manchester. If he had been able to obtain a second van at Bradford, it would have been his duty (according to the practice which has obtained in such cases) to ask for a porter at Rochdale to take charge of it; but without a second van it was of no use for him to ask for the porter, and he proceeded as he was towards Manchester.

The engine-driver was not aware, according to his own statement, until he had gone half-way down the incline above referred to, and was within little more than half a mile of the station-yard at Manchester, that the proportion of break-power on his train was so small. He supposed up to that time, either that it was supplied with the continuous breaks attached to three or more vehicles, and worked simultaneously by one guard, which have been so successfully employed for some years by this Company, or else that he had at least two guards and two break-vans behind him. Finding, however, that the speed of the train did not slacken as much as he expected, he then whistled for the guards' breaks, and observed for the first time, that there was only one guard, and that he was riding on a van not fitted up for the use of continuous breaks.

He reversed his engine, but was unable to prevent it from running forward against the stationary buffers at the end of the siding into which his train was turned, at a speed stated to be somewhat less than five miles an hour. Four of the passengers appear to have been more or less injured by the collision which was thus occasioned, and the more so because they were getting out, or preparing to get out, of the carriages when it occurred.

The regulation to which I have above referred, requiring that when the number of vehicles in a train exceeds eleven, there should be at least two breaks attached to it, appears to have become partly obsolete. I was unable to obtain a copy of it, and it is stated by the guard of the train to have been disobeyed on previous occasions, as well as on the present occasion, in consequence of there being no break-van available at Bradford. Two breaks to twelve vehicles, besides the tender-break, is of itself a smaller proportion of break power than is desirable on such a line and for such an incline, and the proportion that was here employed was utterly inadequate to provide in a reasonable degree for the safety of the passengers in the train.

The Lancashire and Yorkshire Company have now employed successfully for many years continuous breaks, by means of which an ample supply of break-power may be economically and advantageously obtained; and it is to be hoped that they will not delay longer in taking such steps as shall ensure the use of these breaks in all their passenger trains. That they should not provide at Bradford enough of break-vans in the mean time, to enable their own regulation to be carried out, is a piece of neglect for which no valid excuse can be offered.

I have, &c.

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

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

Railway Department, Board of Trade.

SIR, *Whitehall, 15th June 1861.*

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you, to be laid before the Directors of the Lancashire and Yorkshire Railway Company, the enclosed copy of the report made by Colonel Yolland, R.E., the Officer appointed by my Lords to inquire and report upon the circumstances which attended the collision that occurred at the Mill Hill Station on the 25th ultimo.

I have, &c.

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

JAMES BOOTH.

Railway Department, Board of Trade,

SIR, *Whitehall, 12th June 1861.*

I HAVE the honour to report, for the information of the Lords of the Committee of Privy Council for Trade, the result of my inquiry into the cir-

cumstances which attended a collision, that occurred on the 25th ultimo, at Mill Hill Goods Station, situated about one mile to the west of the Blackburn Station, on the line between Blackburn and Preston on the Lancashire and Yorkshire Railway (East Lancashire Section), between a goods train and a return excursion train, between Salford and Houghton, by which about 23 passengers received slight hurts, or have demanded compensation, in addition to one of the guards who was also slightly hurt.

The Preston and Burnley goods train, appointed to leave Preston for Burnley at 6h. 0m. p.m., left about 10 or 15 minutes late on the day in question, and it stopped by appointment at Bamber Bridge, and finally reached Mill Hill Goods Station, according to the driver of the train, at 7h. or 5 minutes past 7 o'clock. As it travelled to Mill Hill Station it passed the Salford and Houghton excursion train in a siding at Houghton Station, and the goods train, when it reached Mill Hill Station, consisted of five loaded waggons and a break-van, which were left standing

on the up main line by the driver, while he went with the engine to collect and bring out 15 other loaded waggons which he had to take forward.

Mill Hill Station is protected by distant signals in each direction, but it is not provided with a station signal. In consequence of a curve in the line, the distant signal towards Preston cannot be seen from the spot where the lever handles for working these signals are placed; and a second signal, intended to act as a repeating signal, is therefore fixed intermediate between the distant signal and the lever handles, but nearer to the lever handles than to the signal. This up distant signal towards Preston is not quite 400 yards from the lever handles, and there is a falling gradient of 1 in 300 towards Mill Hill Station.

As the driver of the goods train approached Mill Hill, he noticed that the up distant signal was off, but before he got as far as the repeating signal, he found it was turned on against him, proving that the distant signal had been put on to cover the tail of his train, which he left standing about 40 yards west of the lever handles, or 360 yards inside of the distant signal.

The driver of the goods train was engaged in closing up his train, having taken the 15 waggons out of the siding, when the excursion train came up, and ran into the after part of the goods train, which had been left standing on the up line, and two of the waggons were knocked off the road and received some damage. The driver states that he heard a long whistle, but could not say from which engine it proceeded, as another engine on the down line had just gone by towards Preston; that the excursion train appeared to be coming rather quick for a train approaching another, but he could not say how fast; that he reversed his engine to go ahead with some of the waggons which he had got hooked on to his engine, and tried to get out of the way. This goods train, according to the Company's time tables, was appointed to leave Mill Hill Station at 7h. 20m. p.m., and the goods driver and the guards assert that the collision occurred about 7h. 10m., so that the driver of the excursion train, if he had consulted his time table, should have known that he would have to pass the goods train at Mill Hill Station, as he saw it go by while he was stopping at Hoghton Station.

The excursion train consisted of engine and tender, two break vans, and eight carriages, one of which, at the time of the collision, was empty, and the train is supposed to have contained from 200 to 250 people. One break-van was placed next to the tender, and the other at the tail of the train. The excursion train was appointed to leave Hoghton for Salford at 7h. 0m. p.m., and it left at that time. There are two small stations between Hoghton and Mill Hill, viz., Pleasington Station, which is 2 miles from Hoghton, and Cherry Tree Station, which is $3\frac{1}{4}$ miles or three-quarters of a mile from Mill Hill. The driver of the excursion train admits that a green flag, as a caution signal, was shown to him, as he passed Pleasington Station, by the station master, which would indicate, according to the Company's regulations, that the goods train had not passed more than five minutes, and that, in consequence of the caution, he went easily and was running about 25 or 26 miles an hour before he received the caution signal, which speed he reduced to 20 miles an hour after the caution was given; that he saw the station-master and a porter on the platform at Cherry Tree Station, but neither of them gave him any caution signal, and he adds that as he did not get this caution at Cherry Tree Station, he never expected that the goods train was at Mill Hill Station; that he kept a look-out for the signal as he approached Mill Hill Station, and found that it was on against him when he was about 50 or 60 yards from it; that he was running at the time about 28 or 30 miles, or perhaps faster, but not 40 miles an hour; and when he saw the signal, he shut off the steam, whistled three or four times sharp for the guards' breaks, and his fireman put on the tender

break before he passed the signal, but he never felt the train pull up at all, until they were within 50 or 60 yards of the goods train break van; that he reversed the engine and put on the steam the reverse way when they had scarcely passed inside the distant signal. The driver's statement is corroborated by that of the fireman, but it is altogether at variance with that of the two guards, as regards the position of the train, when the driver whistled for the breaks.

The head guard in the leading van says, that he was not as near as he could judge, more than 120 yards from the goods train break-van, when he saw it standing on the main line, that they had passed over the level crossing and must have got through the first over-bridge, west of Mill Hill Station (about 250 yards) when he saw the van, and that the driver had not whistled before he saw the van. As soon as he saw it, he applied his break, and while he was doing so, the driver sounded one distinct whistle. The other guard states that they were just going under the over-bridge when he heard the whistle, and that he is quite positive he should have heard any other whistle if it had been sounded.

The speed of the train at the time the collision took place is variously estimated at from 6 or 7 to 8 to 10 miles an hour. The day was wet, and the rails rather slippery, so that the breaks would not exercise so great a controlling power as under ordinary circumstances; but there does not appear to be any doubt, that the collision was caused by the neglect of the driver of the excursion train in having failed to keep a good look out, as he was travelling from Cherry Tree Station to Mill Hill. It is true, that the up distant signal at Mill Hill Station is very badly seen in the day time, owing to there being ground and trees behind it, and the view in front is partially obstructed by an over-bridge about 300 yards west of the signal.

I recommend, for the consideration of the Directors of the Lancashire and Yorkshire Railway Company, that this distant signal should be removed to a greater distance, at least as far as this over-bridge, and be raised so as to be seen above it. Also that a station semaphore signal should be supplied at Mill Hill Station.

There appear to be great discrepancies among the statements made by the different witnesses. Thus, in addition to those already mentioned between the driver and guards, the station-master at Cherry Tree alleged that the goods train passed his station ($\frac{3}{4}$ mile from Mill Hill) at fourteen minutes to 7 o'clock, and the excursion train at two minutes past 7 o'clock. This is not reconcilable with the assertion of the goods train having reached Mill Hill Station at 7h. or 7h. 5m. p.m., or the excursion train running into the goods train at 7h. 10m. Neither does the interval of time between these trains agree with the fact of a caution signal having been given to the excursion train at Pleasington Station, because five minutes had not elapsed from the passing of the goods train, while there is sixteen minutes interval of time, according to the station-master at Cherry Tree between the same trains. The interval of time between the two trains might be the same at Cherry Tree as at Pleasington, as the excursion train would not be likely to travel faster than this light goods train. But there is very little chance of arriving at any certain conclusions where the question of time is concerned, unless the station-masters are obliged to record the arrival, departure, and passage of all trains at all stations; otherwise there is no check on the statements made.

In the notices issued respecting these excursion trains, which are not included in the Company's regular time bills, it would, in my opinion, be advantageous and tend to increase the chances of safe travelling, if the hours at which these trains should reach the various stations, were inserted—as there does not appear to be any check whatever as to the speed at which the driver may think proper to travel. This should not be, as they undoubtedly require to be as carefully provided for, as the ordinary passenger trains.

On this occasion there were no continuous breaks attached to this train, because none were available. It is quite possible that if this train had been supplied with them, this collision might not have

occurred, notwithstanding the neglect of the engine driver.

I have, &c.

*The Secretary,
Board of Trade, Whitehall.*

W. YOLLAND,
Col. R. E.

LONDON AND BLACKWALL AND LONDON, TILBURY, AND SOUTHEND RAILWAYS.

*Railway Department, Board of Trade,
Whitehall, 8th May, 1861.*

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you, in order that the same may be laid before the Directors of the London and Blackwall Railway Company, the enclosed copy of the report made by Captain Tyler, R.E., the officer appointed by My Lords to inquire into the circumstances that attended the accident which occurred, on the 27th ultimo, to a passenger train at the Bromley Junction of the London, Tilbury, and Southend Railway.

I am, &c.

JAMES BOOTH.

*The Secretary of the
London and Blackwall
Railway Company.*

SIR, *No. 1, Whitehall, 4th May, 1861.*

IN compliance with the instructions contained in your minute of the 29th ultimo, I have the honour 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 27th ultimo, at the Bromley Junction of the London, Tilbury, and Southend Railway.

This junction is about two miles and a half from the Fenchurch Street Station of the London and Blackwall Railway, and is the point at which the Bow and Barking and Barking Branch (affording the more direct route to Tilbury) joins the Blackwall Extension Line, connecting the London and Blackwall Railway with Stratford. The junction is approached from the west on a curve to the left towards Stratford, which is continued past it, whilst the Barking Branch curves to the right; the two curves taking opposite directions on the east of the junction, and both of them being laid down upon radii of less than 20 chains. There is a raised box on the south of the junction points, which affords shelter to the signalman, and gives him a good view of the line, as far as the curves will permit; and from which he works his points and signals. He also communicates, by means of a bell, with the signalman at another junction a short distance to the west of him, called the Gas Factory Junction.

On the afternoon in question, the 5.40 P.M. train from Fenchurch Street, consisting of an engine and tender, 5 carriages, and a break-van, and containing about 200 passengers, approached the Bromley Junction in due course. It was travelling at a lower speed than usual, in consequence of its having been checked by the signal at the Gas Factory Junction, whilst a Woodford train obstructed the line in front of it; but at a speed which is stated by the engine-driver and fireman to have been about 10, and the acting guard to have been about 16 miles an hour. In passing through the junction points, the driver felt an "extra twist," and he found that his engine had been thrown off the rails. Instead of passing to the right, along the Barking Branch, as it ought to have done, it ran over the ballast, towards Stratford, for 80 or 90 yards, followed by four of the carriages. Some of the couplings were strained, but none of them gave way; and when the train came to a stand, it was found that the last carriage, and the break-van behind it, had travelled along their proper line towards Barking, and were still on that line, whilst the

four carriages above referred to stretched across between these two vehicles and the engine and tender, which were on the Stratford line.

The carriages all remained in an upright position on their wheels, and the passengers escaped injury, in consequence of the gradual way in which they were thus pulled up.

The acting guard, John Harris, a porter at the Tilbury Station, had taken the place of the regular guard, who was absent from illness. He was sitting on the raised seat of his van, and looking towards the front, when he suddenly saw the funnel of the engine drop, as it passed the junction points. He at once applied his break, and then observed from his window that the engine was going towards Stratford instead of towards Tilbury. To the prompt action of this man, who, by turning on his break, and keeping the couplings stretched, prevented the carriages from turning over, is due, under Providence, the safety of the passengers.

The junction points were examined by several persons after the accident; and it was found that the point-rails were slightly indented at their extremities. The left point-rail was also bent inwards, to a slight extent, about two feet from the heel-chair, and the connecting rods between the two points were both a little bent. There appears to have been no mark on either the left point rail or the standard rail, which would indicate that the engine had mounted it.

I found that the points and the line near them were about $\frac{1}{8}$ " and upwards, tight in gauge, and I think that it would be better, considering the nature of two curves which meet at this spot, if the gauge were eased to that extent, instead of being tightened. I found, also, that the right rail was rather more than $1\frac{1}{8}$ " higher than the left rail, which should be altered. As two curves, on nearly the same radius, diverge from these points in opposite directions, it is evidently desirable that they should be kept nearly level, instead of being adapted, as they have hitherto been, to the more continuous curve only which passes the junction, as I have previously explained, towards Stratford. The pressure which has been exerted against the left point-rail in the course of traffic, as is evident from its appearance, shows how desirable it is in practice, as well as in theory, that this measure should be carried out.

As I learn that the trains are in the habit of passing this junction at considerably greater speed than was used on this occasion, I would further observe here, that it would be only prudent to issue an instruction, prohibiting the engine-drivers from passing it at a greater speed than 10 miles an hour, and to erect a board, with a warning of this description exhibited upon it, in a convenient situation, near the junction-box.

I think it right to make these recommendations in passing, as bearing upon the general safety of the traffic at this point, and I may add, with the same object, that a proportion of wrought-iron spikes is much wanted on these curves, upon which trenails only are at present employed for securing the chairs to the sleepers; but I do not attribute the present accident to the want of any of these measures. On the contrary, I consider it to have been entirely due to the way in which the points were worked, or rather to their not having been properly