

The
VIRTUAL MUSEUM
of the
LANCASHIRE & YORKSHIRE RAILWAY

Accident Reports.

6 January 1863

BoT Report into Accident at
Knottingley GNR.

(3 Pages).

GREAT NORTHERN RAILWAY.

*Railway Department, Board of Trade,
Whitchall, 22d January 1863.*

SIR, 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 Great Northern Railway Company (Lancashire and Yorkshire Railway Company), the enclosed Copy of the Report made by Capt. Tyler, R.E., the officer appointed by my Lords to inquire into the circumstances connected with the collision which occurred on the 6th instant, between two passenger trains belonging to the Great Northern Railway Company, at the Knottingley junction of the Lancashire and Yorkshire and North Eastern Railways.

I have, &c.,
JAMES BOOTH.

*The Secretary of the
Great Northern
Railway Company.*

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

York, 15th January 1863.

SIR, In compliance with the instructions contained in your minute of the 8th instant, 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 6th instant, between two trains of the Great Northern Company, at the Knottingley junction of the Lancashire and Yorkshire and North Eastern Railways.

This junction, which is under the control of the Great Northern Company, is about 250 yards north of the Knottingley Station. Between the two, and 100 yards north of the station, there are, at the "middle box," a set of three-throw switches, which connect the up main lines with each other, and with a cross-over road leading to the down Goole line. The station contains two sets of platforms, and five lines of rails for passenger trains. Of these three are used for the trains passing between London and the north, and two for those running to and from Goole. As the lines from London, Goole, York, and Leeds, all meet at this point, there is a junction on the south as well as one on the north of the junction-box above referred to. The traffic upon the Goole lines is by no means so great as that upon the main lines, and nearly all the trains stop at the Knottingley Station. A considerable amount of shunting is carried on at the points near the middle box, and all the up main line trains which enter the station in the ordinary way necessarily pass them, the trains from York being turned over them by the pointsman in one direction, and those from Leeds in the other, according to circumstances.

The junction is provided with main signals and distant-signals towards York and Leeds, which are worked, as well as the points, from the interior of the junction-box. The Lancashire and Yorkshire line, from the direction of Leeds, is straight, and falls on a gradient of 1 in 150 to within 150 yards of the junction; and it is protected by a distant-signal 870 yards from the box. The North Eastern line, from the direction of York, rises towards the junction on a gradient of 1 in 80. The Leeds distant-signal is well situated, with regard both to the signal-man at the junction and to the driver of an approaching train. It would be visible to the latter on a clear day for about 1,800 yards. From a point 150 yards west of the junction, the line is level up to the junction and beyond it into the station.

On the morning in question a new pair of points were being put in near the *middle box*; and it became necessary on that account that the main-line trains should, as they arrived from York and Leeds, be turned into the station on the Goole line instead of on the main line. Notice was accordingly sent, first to the signal-man Bentley, who had been on duty during the night, at a quarter or twenty minutes to 8 a.m., and afterwards, at 8:24, to the signal-man Woodhams, who relieved him, informing them that this course was to be adopted.

Woodhams ought to have been on duty at 8 o'clock; but he found when he was near the box that he had left a key which he required behind him, and after returning to fetch it he did not get back to the junction till 8:15. About 8:24 he lowered his distant and main signals to admit a train for Goole from Wakefield (the direction of Leeds), and he replaced them at danger after that train had passed. Bentley remained at the box while this was done; and he further saw Woodhams (according to a statement put forward at a late hour by both of these men) turn the lever of his distant-signal a second time to "all right" and to "danger," in order to make sure of its working properly. Woodhams alleges that the foggy condition of the atmosphere, which prevented them from seeing the distant-signal, induced him to adopt this extra precaution.

A few minutes later the parliamentary (7:30 a.m.) passenger train from York, due at Knottingley at 8:25, approached the junction; and the engine-driver gave two whistles, according to custom, outside of the (York) distant-signal. He found that signal lowered for him when he came in sight of it, in answer to his whistles, and he proceeded forward towards the main-signals. Seeing that those signals remained at danger, he brought his train to a stand clear of the Leeds line, and gave two additional whistles. The signal-man then left his box, and waved the train forward with his hand-flag, saying to the engine-driver as he passed, "Go steady. I am going to turn you down the Goole line."

The York train consisted, in the following order, of an engine and tender, a horse-box, a break-van, a carriage-truck, and four passenger carriages. As the first of these carriages crossed the Leeds line, the engine of the parliamentary train from Leeds, due at Knottingley at 8:30, came into collision with it. The roof of this carriage was thrown forward to the right upon the down line; parts of its sides and framing flew to the left between the main signals and the junction box; and other parts again fell (under the second carriage) upon the distant-signal wires north of the main-signals. Mr. Latham, who was riding in the first carriage, was caught, and had his leg jammed, between the end of the second carriage and the signal-post; and three female passengers were found under the second carriage, lying upon the signal wires. The other two carriages were thrown off the rails. The engine and tender were separated by the shock from the horse-box behind them, and ran forward for a short distance. The horse-box was turned round. The carriage-truck and break-van remained on the rails, but were brought to a sudden stand. Fourteen of the passengers are returned as having been injured; and of these one passenger, Mrs. Robinson, has unfortunately died from the shock she received in being crushed under the second carriage. The engine-driver, also, of the Leeds train was severely injured in jumping off his engine just before the collision occurred, while the fireman who remained on it was comparatively unhurt.

The Leeds train left Leeds at 7:32, two minutes late, consisting of an engine and tender, a first, a second, and a third-class, carriages, with a break-van;

and it approached the junction at Knottingley about three minutes late. The engine-driver whistled, as usual, for the distant-signal from the junction, found it at all right, and passed it at a speed of about twenty miles an hour. Running forward towards the junction, he suddenly observed that the York train was in front of him, and he was then unable to avoid the collision that followed. He did not notice the condition of the main-signals any more than his guard, but his fireman asserts that he saw the Leeds main-signal at caution before the collision occurred. The position of the arm of that signal was altered by the shock of the collision, in consequence of the end of the second carriage having damaged the *balance-lever* and the *pin-plate* on which it worked; but the other evidence leaves no doubt of its having been at danger as the Leeds train approached it. The guard of this train states that he applied his break gradually after he had passed the distant-signal by about fifty yards, and that the speed was about six miles an hour, as nearly as he can tell, at the time of the collision. This estimate is probably a low one, and the train must have been travelling at considerably greater speed when the engine-driver first discovered the York train (from a distance of 150 yards, according to the fireman) to be at the junction.

The condition of the atmosphere is differently described by the various witnesses. The signal-man, Bentley, could see the Leeds distant-signal from his box about three-quarters of an hour before the collision, and a foreman platelayer, in the employment of the Lancashire and Yorkshire Company, could see that signal for about 300 yards shortly after the collision. The engine-driver of the York train could not see the distant-signal on the York line, he believes, for more than twenty or twenty-five yards, nor the main-signal for a much greater distance, though he was able, while advancing cautiously on account of the fog (up a severe gradient), to stop short of the Leeds line when he found the main-signal at danger. The station-inspector could see the steam of the York train as it approached, and could also see the gas-house, which was about 250 yards from him, in the direction of Leeds. It is evident that masses of fog were floating up from the river on the north-east of the junction, and that one of these masses partly obscured the York train and the main-signals as the Leeds train approached the junction; while the atmosphere was not so thick in the direction either of the station or of the Leeds distant-signal as at the junction. Whilst it must be admitted on the one hand, that the Leeds engine-driver may have been taken by surprise in finding it thicker at the junction than he expected, it is clear on the other hand that he was travelling at greater speed than was justifiable when he suddenly caught sight of the York train. He no doubt believed, after finding the distant-signal at "all right," that the junction would be clear for him to pass through it into the station; and he ought certainly to have been warned by the distant-signal that it was not so.

There can be no doubt that the arm of the Leeds distant-signal was not at "danger" when the Leeds train passed it. Independently of the evidence of the engine-driver, the fireman, and the guard of that train, all of whom saw that it was down, there is also that of a foreman platelayer on the Lancashire and Yorkshire Railway, and of an inspector and porter from the Knottingley station. The foreman platelayer, Truman, was walking towards Leeds, and was about 200 yards on the Knottingley side of the distant-signal when the Goolo train (which preceded the Leeds train) passed him. He saw the arm of the distant signal lowered for that train, and raised again after it had passed: and after walking as far as the distant-signal post he both heard and saw the arm lowered again. He proceeded in the direction of Leeds, examining the permanent way, and had not gone more than 150 yards beyond the signal-post before he heard a whistle from the engine-driver of the Leeds train, which was then approaching. After

it had passed him he looked round and watched the train and the distant-signal, and he then continued his inspection for 100 yards further towards Leeds. Hearing the crash of the collision, he walked back towards the station, and he noticed as he went up to, and after he had passed, the distant-signal, that the arm still remained down.

At 300 yards from the signal-post he met the guard of the Leeds train, who said to him, "Can you see that signal is down?" (meaning the distant-signal); and he replied "Yes." After walking fifty or sixty yards further, he met the station-inspector and a porter, who inquired of him as to the state of the signal, and learnt from him that it was down. The inspector told him "to go and try to put it on" (from the junction), and went forward towards it with the porter, whilst he (Truman) proceeded (in the opposite direction) to the site of the collision. It would appear that the inspector must have reached the signal-post a little before Truman got to the other end of the wire; and this is consistent with Truman's statement, that "they were nearer to the distant-signal than to the junction, by a good deal," when he met them.

On arriving opposite to the distant-signal, the inspector sent the porter up the slope (on which it is situated at the side of a cutting) to lower the balance-weight, and thus to lift the semaphore arm to danger. He found no difficulty in raising the arm, and, leaving it at danger, he returned to the line. He had hardly descended the slope before the arm fell down again, in consequence, as is now evident, of Truman's efforts in pulling at the wire; and when it was once more placed in a horizontal position it remained permanently in that position. Truman states plainly that he pulled the wire first in one direction and then in another, not knowing which was right; and he believes that he pulled, first towards the junction (which would have drawn the arm down), and afterwards towards the distant-signal. By pulling in the latter direction he would have raised the signal-arm under ordinary circumstances; but it appears from the further evidence of an inspector of permanent way, named Stringer, in the service of the Lancashire and Yorkshire Company, who also pulled at it, that the wire was too tightly fixed under the remains of the carriages to allow of its being moved in that direction.

In considering the causes of this collision, it is plain that—1. The distant-signal towards Leeds was at "all right" when it ought to have been at "danger," to protect the York train during its passage through the junction; and—2. The engine-driver of the Leeds train, misled it is true by the distant-signal, and surprised no doubt by a sudden and partial fog, did not approach the main-signal at the junction with the caution that he ought to have observed. The facts, that the arm of the distant-signal was not at "danger," and that it was lowered by the signal-man to "all right" so shortly before the approach of the Leeds train, tell strongly against the signal-man Woodhams, who ought to have kept that signal at "danger" until the York train was clear of the junction. His statement—that he lowered it in order that he might be the more certain of raising it again—and the evidence of his colleague to corroborate that statement—lose part of their effect from their not having been put forward in the first instance. At the same time it must be admitted that the importance of those statements was not so apparent until after the foreman platelayer had proved the untimely lowering of the signal which was thus accounted for; and they may possibly have forgotten in the first instance that the signal was so lowered, under the excitement produced by the accident. The circumstances, that the signal-lever in the junction-box was held fast in the position of danger by the pressure of the wrecks of the carriages upon the wire, when it was tried (though after the carriages had been moved) by the Company's signal-fitter, and (which is more important) that the signal-arm was free to move to danger, and did not move to danger whilst the

carriages were in the position in which they were first thrown upon the wire shortly after the accident, are certainly much in his favour. He is further an experienced signal-man of excellent character, and he has received as many as sixteen half-yearly rewards, of 2l. 10s. each, for good conduct and care in the discharge of his duties.

I cannot, therefore, upon the evidence that I have received, convict him of blame. It is by no means likely, but it is possible, that he may have turned the lever to the position of danger, as he states, without the arm of the signal having risen as it ought to have done; and it is certain that if he erred at all with regard to the York train, it was on the side of over-caution. He had occasion to complain of this distant-signal about three weeks previously because the arms did not fly readily to danger; and the apparatus on the post was cleaned and oiled in consequence of that complaint. The signal appears to have worked well since that time; it has continued to work well since the accident, and it was signed for (with the other signals) as being in good order by the signal-man, Bentley, four days before the accident. It is, how-

ever, at a long distance from the junction, in a foggy neighbourhood; the line falls, as I have before stated, on a gradient of 1 in 150 towards the junction; and it is therefore desirable that the signal-men, who are obliged to use constant care in keeping the wire in a proper condition of adjustment, should be provided with a means of ascertaining whether it is working properly at times when it is not visible to them. There are several methods, which I need not here specify, by which this may be effected. The present would also be a good opportunity for the Company to improve this important junction. Better means and appliances, point-levers made to remain without being held in their proper position, self-adjusting handles for the distant-signals, points and signals working in connection with another, have come into extensive use since it was first employed for traffic; and may be advantageously provided for future use in this junction-box.

I have, &c.,

*The Secretary,
Board of Trade.*

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

GREAT SOUTHERN AND WESTERN RAILWAY.

*Railway Department, Board of Trade,
Whitehall, 6th March 1863.*

SIR, 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 Cork and Limerick Direct [Great Southern and Western] Railway Company, the enclosed copy of the report made by Capt. Rich, R.E., the officer appointed by my Lords to inquire into the circumstances which attended the collision that occurred on the 28th January last, between a passenger train and a goods train at the Bruree Station of the Cork and Limerick Direct Railway.

I am, &c.

JAMES BOOTH.

*The Secretary of the
Cork and Limerick Direct
Railway Company.
The Secretary of the
Great Southern and Western
Railway Company.*

*Morrison's Hotel, Dublin,
27th February 1863.*

SIR, WITH reference to your instructions of the 3d instant, 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 28th ult., at the Bruree Station of the Cork and Limerick Direct Railway, which line is worked by the Great Southern and Western Railway Company.

The goods train, consisting of an engine and tender, a break van, 16 waggons, and a second break van, coupled in the order given, left Limerick at 5.45 p.m. on the evening in question, and proceeded all right to Bruree Station, where it arrived about 7.14 p.m.

On drawing up at the station platform the engine driver delivered up his staff to the porter, who carried it into the station master's office, and communicated to the driver and guard the station master's orders to go on, and place his goods train in the siding as quickly as possible.

When the engine driver reached the goods shed, which is about 100 yards on the Cork side of the Bruree Station, he was met by a porter from the goods shed, and informed that he must get some waggons out of the siding before there would be room for his goods train to put in. After some consultation between them, the goods porter (with the engine driver and guard's consent) uncoupled the engine,

which proceeded into the siding, and left the goods train standing on the main line, which is a single line between Charleville and Limerick.

The goods engine was about to move the waggons in the siding, when the 5.30 p.m. passenger train from Cork to Limerick, which is timed to leave Bruree Station at 7.24 p.m., was heard approaching. The driver of the goods engine sounded his whistle, and the goods guard and pointsman at the siding points showed their red lamps, but the driver of the passenger train did not perceive the danger till within a few yards of the goods train, which he ran into at a speed variously estimated at 3 to 7 miles an hour.

Three goods waggons and the leading break van of the goods train were smashed. The guard of the passenger train, who was riding in a break van next to the engine, was much shaken, and appears still to be in a weak, nervous state. One third class passenger was also much shaken and still lies in bed, but is reported to be recovering, and three or four other passengers received slight injuries, from which they are said to have recovered.

The passenger train consisted of an engine and tender, one break van, one third class, one second class, and one first class carriage, coupled in the order given. The only injury to this train was some slight damage to the engine funnel. The train proceeded to Limerick that evening about 10 p.m.

The passenger train is timed to leave Bruree at 7.24 p.m. The station master and porters at Bruree state that it arrived about 7.20 p.m., which is rather before time. The guard, driver, and fireman of the passenger engine affirm that they left Charleville about 10 minutes late, and did not make up any of the lost time between that station and Bruree.

The evidence of these men does not bear the appearance of truth, as the engine driver and fireman state that their speed was only about four miles an hour on passing the distant signal approaching Bruree, whilst the guard professes ignorance as to the speed, but thinks they were running at the ordinary rate, which is given in the time tables as about 20 miles an hour between Charleville and Bruree. All three men state that a white light was shown at the distant signal post, whereas there appears to be no doubt that the red glass was turned on at the station, and a farmer who was riding along the public road near the distant signal, and noticed the train pass, states positively that a red light was exhibited at the time the train approached.