

Appendix No. 60.

ACCIDENTS.

York and North
Midland Railway.

APPENDIX No. 60.

YORK AND NORTH MIDLAND RAILWAY.

MY LORD,

Buchanan, Glasgow, July 7, 1852.

I THINK it my duty to call your attention to an accident which occurred on the Great Northern Railway to a train in which I was a passenger, and which was of a most frightful and dangerous nature, although from the fortunate and wonderful circumstance that none of the passengers were seriously hurt the attention of the public and the Board of Trade is not likely to be called to it.

The accident took place upon a bridge and viaduct, about two miles north of the Knottingley station, on the 14th of this month, to the express train from London, and was occasioned by the express train meeting and actually running into another train coming in the opposite direction.

The engine of our train demolished entirely two trucks of the train with which it came in collision, separating the train into two parts, the leading part going on and leaving the rest behind. Had those trucks consisted of passenger carriages the probability is that every passenger in them would have been killed, and notwithstanding the violent shock to our train, and which in most similar instances has been productive of great loss of life, no passenger in our train was seriously hurt. Had any of our carriages been thrown off the line they must have fallen over a viaduct more than forty feet high.

The accident arose from the practice of, at this point, making both the up and down trains go upon the same line, and from some mistake of the signals the two trains came in collision; the reason of this most dangerous practice is, that the bridge is composed of two tubes for the two lines of rails, one of which has been approved of by the Government Engineer, but is considered so much too narrow, and consequently dangerous, that the Government Engineer has refused to sanction the second. It would appear as if he had made a great mistake as regards the first, and has expected, by refusing to sanction the second, that the Company will be induced to alter both tubes. This the Company refused to do, alleging that the fault lies with the Government Engineer, who sanctioned the first, and to whom the plans were submitted, and that they are not to be put to so great an expense as rebuilding the bridge in consequence of the mistake or ignorance of the Government Engineer. The Government, or at least the Engineer, cannot, it appears, shut up the first-made tube, and consequently cannot stop the traffic on the line, which would be the effectual means of forcing the Company to alter the bridge, but he shuts up the second line, and consequently exposes the public to the danger of such a collision as has happened.

I understand that this is not the first accident that has occurred, and it is evident that it is impossible to work the line in this state without the chance of such accidents. The spot is peculiarly dangerous as it is not at a station, and it is evident that the trains are in the habit of passing it without even the precaution of slackening speed.

Supposing, therefore, that if the practice continues, much more stringent regulations should be enforced, but I look upon this state of things as such as that during the session of Parliament means should have been taken to settle this question by an Act of Parliament if the Government had no power to arrange it.

If the statement which I make is correct, both parties, the Railway Directors and the Government Inspector, are to blame, but it is the duty of the Government to see that the public is not exposed to such dangers arising from a squabble between a Railway Company and a Government officer.

I trust that your Lordship will cause an inquiry to be made, not only into the circumstances and the immediate cause of the accident, but into the whole matter as affects the state of the line at that point, and endeavour to remedy so dangerous a state of things.

I am, &c.

MONTROSE.

*The Lord Colchester.**Railway Department, Board of Trade,
Whitehall, July 21, 1852.*

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to inform you that it having been reported to them that a collision of a very serious nature, although unattended with serious personal injury to any of the passengers, had occurred on the Knottingley branch of the York and North Midland Railway on the 14th instant, my Lords have appointed Captain Wynne, R.E., to inquire into the circumstances which attended it.

I have, &c.

*The Secretary of the
York and North Midland Railway Company.*J. L. A. SIMMONS,
Capt. Royal Engineers.

*Railway Department, Board of Trade,
Whitehall, July 28, 1852.*

SIR,

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 a collision that occurred on the Knottingley branch of the York and North Midland Railway at the south entrance of the Brotherton tube on the 14th instant, and I have to report the following particulars.

You are aware that there is at present but one tube opened, which only carries a single line of rails across the river Aire, the traffic of the double line has therefore at this point to be led over a single line. To conduct the traffic in safety under such circumstances is an operation which requires extreme care, as the least omission in putting on the proper signal might cause a fearful collision from trains proceeding in opposite directions; the usual practice which has been adopted under such circumstances is, in addition to the signals, to appoint *one* man (usually called a travelling porter) whose duty it is to accompany every train over the single portion of the line, it being a positive instruction to the drivers not to pass the points leading into the single line unless accompanied by such porter; such an arrangement renders collision impossible. When the Knottingley branch was first opened there was a single line of way over the river Aire on a temporary bridge; the tubes being then in progress of construction, the consent of the Railway Commissioners to the opening of the line was given, subject to the adoption of a travelling porter over the single line. When the first tube was opened no such stipulation was made, as it was stated to me by the officers of the Company that the temporary line would be kept available, so as to have two lines across the river; the Company have, however, ceased to use the temporary line, and also dispensed with the travelling porter, and have adopted an arrangement of signals, the principle of which at first sight appears to give the necessary security, but it is deficient in an essential element of safety, which must have been apparent from the very moment they were attempted to be worked; and when the Company took upon themselves to dispense with the Commissioners' stipulations it was at least their duty to see that there was no flaw in the principle which they adopted. I will describe the signals as they exist. They consist of two distant signals, one of which extends to a considerable distance beyond the south end of the tube, and the other is similarly situated with regard to the north end of the tube; the man who works them is placed in a central situation between them; he works both signals by means of one lever handle, and the principle is, that when he turns one signal off the other is necessarily turned on; this would generally protect trains proceeding in opposite directions on the single line from collision, but while such protection is afforded there is no provision made to protect the rear of the train from a following train, and it is a rule on the York and North Midland Railway, as well as on most other railways, that when a train has passed a signal the danger-signal should be shown for five minutes afterwards. Now it is evident that as these signals are arranged, if the rear of a train is protected by signals whilst on the single line, the front cannot be so protected, and vice versa. On the occasion of the collision on the 14th instant it appears that a coke train of the Great Northern Company coming from York was allowed to pass the distant signal; before it entered the tube the express train of the same Company from the south was seen approaching; coming in this direction a train can be seen upwards of a mile off, while in the opposite direction a train cannot be seen until it comes up to the signal man, a tunnel intervening. The driver of the express asserts that the distant signal was off as he approached, and that he never saw it on. The signal man asserts the contrary, and that it is a rule with him when he admits a train from the north not to turn the north signal on again until he sees the tail of the train he has admitted 150 yards beyond the south end of the tube; if he does so, it is quite sufficient security from collision between trains coming in opposite directions, but then the rear of the train may be endangered. The two drivers of the Great Northern Railway assert, however, that the signal man invariably turns on the north signal the moment that a train from York emerges from the tunnel, which terminates a short distance from the north end of the tube. In the collision under consideration the express train continued to advance, and the engine of it struck the tail of the coal train, which had not passed clear of the point, about the fifth wagon from the rear. I do not think it necessary to weigh the conflicting evidence of the two parties; they directly contradict each other; but one thing is evident, that the arrangement of the signals is inadequate to afford protection to the trains; and it is my opinion that the public safety requires that the stipulations made by the Railway Commissioners when the Knottingley branch first opened should be enforced, viz., that a travelling porter should be appointed to travel over the single portion of the line with every train; and, moreover, that the signals should be so arranged that the rear of a train may be protected in the usual way, without its being necessary to turn off the distant signal in the opposite direction. The provision of a travelling porter will appear the more necessary when it is considered that in traversing the single line in either direction trains must pass over facing points, the adoption of the provision will ensure that express and other trains will not pass over these points at a dangerous speed.

I have received two reports from the general manager of the Great Northern Railway, stating that two collisions since the one on the 14th were narrowly avoided under similar circumstances. As I have not yet been able to forward these to the York and North Midland Company for their explanation, it would not be justice to that Company further to allude to them at present, but the mere statement from one of the parties that further

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collisions were imminent makes me feel that no time should be lost in urging on the Company the adoption of such measures as will ensure the public safety.

I am, &c.

Captain Simmons, R.E.,
 &c. &c.

GEO. WYNNE,
 Capt. Royal Engineers.

Railway Department, Board of Trade,
 Whitehall, July 29, 1852.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you a copy of the report they have received from their Inspecting Officer relative to the accident which occurred at the Brotherton Bridge on the Knottingley branch of the York and North Midland Railway on the 14th instant, and to request that you will bring it to the immediate attention of the Directors.

My Lords trust that the Directors will lose no time in taking such steps as will effectually prevent the possibility of a recurrence of such an accident, and they would urge upon them the consideration of the very great responsibility which must attach to them should any other accident occur from inadequate provision for the safety of trains from collision, more especially as it appears that the Company have taken upon themselves to vary the arrangement, compliance with which was a condition made by the Commissioners of Railways when they gave their sanction to the single line across the river Aire being opened in the first instance, and not to adopt or continue the arrangement which their own officers had stated to the Inspecting Officer was the intention of the Company to adopt when the first tube was opened, viz., to continue to use the temporary bridge for the traffic in one direction.

My Lords desire me to request that you will point out to the Directors that the arrangement proposed in the report of the Inspecting Officer appears to their Lordships to be one of a nature which can be carried into effect with facility, and that the adoption of it having been one of the conditions upon which the line was opened in the first instance, the Directors ought not in their Lordships opinion to hesitate henceforth to adopt it.

I have, &c.

To the Secretary of the
 York and North Midland Railway Company.

D. M'GREGOR,
 Registrar.

York and North Midland Railway,
 Secretary's Office, York, July 30, 1852.

SIR,

I AM duly in receipt of your letter of yesterday, enclosing the copy of a report which has been laid before the Board of Trade by their Inspecting Officer relative to the accident which occurred at the Brotherton Bridge on the Knottingley line.

The documents shall be laid before the Directors of this Company at their next meeting, together with that from the Commissioners of Railways, giving permission for opening the first line of rails over the bridge.

I have, &c.

Duncan M'Gregor, Esq.
 &c. &c.

WM. GRAY, jun.
 Secretary.

Railway Department, Board of Trade,
 Whitehall, August 6, 1852.

MY LORD DUKE,

I AM directed by the Lords of the Committee of Privy Council for Trade to inform you, with reference to your letter addressed to the Vice President of the Board on the subject of an accident which occurred on the 14th ultimo near Knottingley, that my Lords immediately upon receiving a report of the accident in question directed one of their inspecting officers to investigate and to report upon the circumstances which attended it. A copy of his report is forwarded for your Grace's information, and in doing so my Lords have directed me to make a short statement of the circumstances under which this bridge remains open for the public conveyance of passengers only as a single line.

In consequence of the peculiar nature of the structure, and the time occupied in its erection, the Company found it to their advantage, the remainder of the Knottingley branch being completed, to construct a temporary timber bridge adapted for a single line of rails to cross the river Aire, so as to afford the means during the construction of the permanent structure of conveying the traffic over the branch railway without a break.

This temporary bridge was opened with the sanction of the late Board of Commissioners of Railways in April 1850, with a provision on their part for the security of the public against accidents by collision. The provision consisted in a stipulation that a porter was to be appointed to travel over the single line, which was about 135 yards in length, with every train. This arrangement would involve a delay of a few minutes to every train occasioned by the necessity of its stopping to pick up the porter before entering upon the single line, and again upon leaving it to allow him to get off the engine, but would have the advantage of preventing the possibility of any accident from collision.

The permanent structure will, when completed, consist of two large wrought iron tubes 244 feet in length, through which the trains will pass, each tube being as it were a distinct bridge carrying one line of rails. Appendix No. 60.

In July 1851 the Company having completed one of these tubes, it was inspected, and having been reported upon favourably was opened for the public conveyance of passengers, it being understood by the inspecting officer that the use of the temporary bridge would be continued, so that with the addition of the tube two lines of road would be completed.

In November 1851 the second tube was inspected, and then for the first time the inspecting officer discovered that the tubes were of a width not sufficient to secure to travellers immunity from accidents, such as might arise from a passenger's head or person projecting from the carriage. He consequently reported that although the same objection lay against the first tube, having been at his inspection of that tube occupied with other considerations relative to its strength and stability, he had overlooked the fact of its being too narrow; he, however, felt it incumbent upon him to report that in his opinion the opening of this second tube would be attended with danger to the public. My Lords accordingly in the exercise of their powers directed the Company to postpone its opening for one month, and have continued to direct the Company to postpone the opening of it from month to month up to the present time. In the meanwhile it appears that the Company have thought proper to use the tube which had been opened in July for the traffic in both directions, and at the time of the accident they were working the traffic through it as a single line upon a system different from that stipulated by the late Board of Commissioners of Railways when they gave their sanction to the use of the temporary bridge as a single line, and upon a system which had not received the sanction of their Lordships. In consequence of the investigation which has now taken place my Lords have directed a communication to be made to the Company, a copy of which is enclosed, which they trust will have the effect of preventing the possibility of collision for the future, until the tubes are altered so as to remove the objections taken to the use of them for the transit of railway trains.

My Lords have now been given to understand that the Company are about to effect the necessary alterations at once in both tubes, so that it is to be hoped that the public will be relieved from the inconvenience of even the short delay which will be requisite to carry into effect the recommendation of their Lordships.

The Duke of Montrose,
&c. &c.

I remain, &c.

J. L. A. SIMMONS,
Capt. Royal Engineers.

SIR,

Buchanan, August 9, 1852.

I HAVE the honour to acknowledge the communication from the Lords of the Committee of Privy Council, stating the result of the investigation ordered by them into the circumstances of the railway collision which took place on the 14th of last month near Knottingley, and the arrangements of the Company in regard to the bridge over the river Aire.

I am much gratified at finding that the statements I made to the Vice-President of the Board of Trade have been so correct, and my impression that the mode of signals in use and the arrangements with regard to the trains were extremely defective has been so borne out by the facts elicited from the investigation of the Government Inspector.

I rejoice that I have been the means of calling the attention of the Board of Trade to the dangerous mode of conducting the traffic pursued by the York and North Midland Company, and that there is a prospect of a speedy remedy being put to this state of things.

Captain Simmons, R.E.,
&c. &c.

I remain, &c.

MONTROSE.

SIR,

York and North Midland Railway,
Secretary's Office, York, August 6, 1852.

YOUR letter of the 29th ultimo, forwarded by direction of the Lords of the Committee of Privy Council for Trade, together with the copy of the report of Captain Wynne as to the collision which occurred near the tubular bridge at Brotherton, have been laid before the Directors of this Company, and I am instructed to reply that the arrangement proposed in Captain Wynne's report, of appointing a travelling porter to accompany every train over the single line of rails, has been put in force.

The Directors, however, beg to state, that in adopting this arrangement they do so in compliance with the express recommendation of the Board of Trade, who alone must be considered responsible for that course, and they would point out that in their opinion, and in that of their engineer, Mr. Robert Stephenson, no danger need be apprehended from the narrowness of the tube when both lines are opened and trains allowed to pass through at their ordinary speed. They consider it highly objectionable that each train should be compelled to stop to take up the travelling porter at the entrance of the tube, which will inevitably induce passengers to lean out of the windows of the carriages to ascertain the cause of the stoppage.

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 York and North
 Midland Railway.

I am further instructed to state, with reference to that part of your letter relating to the use of the temporary bridge at Knottingley, that Captain Wynne is obviously in error in stating that the Company professed their intention of continuing to use the temporary bridge for the passage of trains after the first tube was opened. No such statement could have been made by any competent officer of the Company, as it was well known to them that the second tube was to be constructed upon the temporary bridge, which has since been done. The stoppage of this line was apparent at the time when Captain Wynne inspected the second line of rails through the bridge, and in his report thereon he mentions that the second tube "was constructed on a temporary bridge, which still exists."

The inconvenience and danger arising from the trains being restricted to a single line were pointed out in a letter addressed by the Directors of this Company to the Lords of the Committee of Privy Council for Trade, on the 12th of November 1850, requesting interim permission to use the tube. In reply to which Captain Simmons stated that "their Lordships are fully sensible of the nature of the inconvenience and delays which must occur from the traffic being confined to a single line for a short interval in an otherwise continuous double line of railway."

The Directors would also point out, in reference to Captain Wynne's remarks as to the impossibility of protecting the rear of trains passing through the tunnel while the distant signal is turned on in advance, that there is no occasion whatever for any such protecting signal in a situation when every train which advances is already protected by the signals at the Burton Salmon station and junction, both of which are within a short distance from the tunnel, and that no signal would be used at the north end of the tunnel, except for the purposes of the single line, for which alone it is used. Captain Wynne omits to notice that there is a man stationed with a hand signal at the end of the bridge, in addition to the distant signal, and the Company are persuaded that the system of signals adopted is such as to prevent any risk of accident unless their indication be neglected.

Duncan M'Gregor, Esq.,
 &c. &c.

I have, &c.

WM. GRAY, jun.,
 Secretary.

*Railway Department, Board of Trade,
 Whitehall, August 11, 1852.*

SIR,

I HAVE before me the letter of the Secretary of the York and North Midland Railway of the 6th August, in reply to the letter of the Lords of the Committee of Privy Council for Trade, forwarding my report on the collision which occurred near the tubular bridge at Brotherton. In it the Directors remark that I must obviously be in error in stating the Company professed their intention of continuing to use the temporary bridge, &c., as it was well known to them that the second tube was to be constructed upon the temporary bridge, which has since been done. I have to remark upon this, that when I inspected the first tube, the second was in progress in its present position, and the temporary bridge carrying a line of rails was then in existence, and placed at such a distance as not to interfere with the construction of the second tube. On referring to my inspectional report I find that I there state "that by retaining the present temporary line the throttling of the traffic at this point into a single line will be obviated."

As I wrote this report two days after my inspection, with all the facts fresh in my mind, it will be obvious to their Lordships that I could not have made the statement I did without having sufficient grounds, and I am perfectly satisfied that it was so stated to me. At this distance of time I cannot positively state by whom, but my impression is that it was by Mr. Birkenshaw, the engineer of the line.

The Directors remark with regard to my statement of the impossibility with the present arrangement of signals of protecting the rear of trains passing through the tunnel, "that there is no occasion whatever for any such protecting signal, when every train which advances is already protected by the signals at the Burton Salmon station and junction." I presume that the protection here alluded to arises from the interval prescribed between trains passing stations; as the tubular bridge, is, I believe, two miles from the Burton Salmon station, their Lordships will hardly consider this to be an adequate protection, and the Directors must recollect that on the inquiry into the accident which occurred some time since at the Burton Salmon station it was shown that the Company's order on this head did not meet with that attention which would render it an adequate protection against collision from a following train.

The Directors appear to think that I have for some reason refrained from noticing the fact of a man being stationed with a hand signal at the south end of the tube. It is evident that a man so placed can be no protection to the rear of a train coming from the north; the only object that I could see in placing a man there, was for him to look after the points, and as he is removed from his post at nightfall, and no one left at that end of the tube to look after the trains that pass at night, I considered that the Directors looked upon him much in the same light that I did. It was certainly from no wish to understate the precautions adopted by the Company.

I think the fears expressed by the Directors, that the stoppage of the trains at the entrances of the tube to take up the travelling porter will induce passengers to lean out of the carriages to ascertain the cause of stoppage, are not without foundation; it certainly adds additional weight to the opinion I have already expressed on the danger to be apprehended

hended from the narrowness of the tubes; but whilst I admit danger from this cause, it yet appears so light in comparison to that which was so recently incurred on the occasion of the late collision, more especially when the very slow speed is considered at which trains must pass through the tube in consequence of the proposed arrangement, that I do not see reason to alter the opinion I have given of the necessity for a travelling porter, and if an active man is appointed who can mount on the engine when it is slowed, and so avoid a direct stoppage, the curiosity of the passengers is not likely to be excited.

Captain Simmons, R.E.,
&c. &c.

I am, &c.
GEO. WYNNE,
Capt. Royal Engineers.

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ACCIDENTS.
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York and North
Midland Railway.

Railway Department, Board of Trade,
Whitehall, August 12, 1852.

SIR,

I AM directed by the Lords of Committee of Privy Council for Trade to acknowledge the receipt of your letter of the 6th instant, having reference to the report made by Captain Wynne upon the late accident which occurred at the tubular bridge at Brotherton, and to transmit to you a copy of the observations made by Captain Wynne thereon; and I am to inform you that their Lordships trust the Company will continue to use the precautions recommended by their officer so long as this bridge shall continue open for a single line of rails only.

The Secretary of the
York and North Midland Railway Company.

I have, &c.
J. L. A. SIMMONS,
Capt. Royal Engineers.

APPENDIX No. 61.

YORK, NEWCASTLE, AND BERWICK RAILWAY.

Appendix No. 61.
—
York, Newcastle,
and Berwick
Railway.

SIR,

June 2, 1852.

IN compliance with the instructions contained in your letter of the 25th ultimo, I have the honour to lay before you the following report on the subject of the accident which occurred on the York, Newcastle, and Berwick Railway, on Saturday the 22d ultimo, from a collision between the down mail train and an engine which was standing on the line.

The engine in question was one which was usually employed in shunting and arranging the coal waggons at South Shields preparatory to the coal being lowered from the drops into the colliers. It is continued upon this duty all the week, both day and night, being in charge of two sets of engine and firemen; one set remaining with it during the week from 6 A.M. to 6 P.M., and the other from 6 P.M. to 6 A.M. Once during the week the foreman at the Gateshead workshops sends an order for it to be taken up there to be cleaned, another engine being sent down to replace it; and on Saturday evening the engine driver in charge has orders to take it to the Gateshead workshops where it remains till Monday morning.

The drops from which the coal is lowered into the ships and the adjacent sidings for the coal waggons are situated at some distance from the passenger station at South Shields. There is a clerk at this coaling station to receive the coals, who gives directions to the engine driver of the engine stationed there, as to the arrangement of the coal waggons; but I was informed that in other respects he has no control over the the engine driver, who receives his orders direct from Gateshead.

On the morning of the day on which the accident occurred the fireman was drunk when he came to his duty at 6 A.M., and he does not appear to have afforded any assistance to the engine driver during the whole of the day; and in consequence the clerk in charge of the coaling, Mr. Scott, directed a man named George Alexander, who was employed to supply the engines with coke, to take the fireman's place. This man had never been employed on an engine before.

Mr. Scott appears to have left the ground at 5 o'clock P.M., after having given the engine driver directions as to the shunting of the coal waggons. The engine driver was occupied about this work till half past 7 o'clock. He then supplied his tender with water, and leaving the engine standing on a side line with the wheels chocked, went to a public house, where his fireman had retired to on finding himself incapable of working. The man Alexander, who had been assisting him, appears to have gone home, so that the engine was left without any one near it. This man states that he observed about 9 o'clock that the engine was still standing where he had left it, and that he therefore went back to it, and was soon afterwards joined by the engine driver and fireman, who were both drunk.

They all three got upon the engine, and started at a little before 10 o'clock for Gateshead at a considerable speed.