

Appendix No. 46.

ACCIDENTS.

Midland Railway.

*York and North Midland Railway,
Secretary's Office, York, January 6, 1853.*

SIR,

I BEG to acknowledge receipt of your letter of the 4th inst. (by this morning's post), enclosing copy of report by Captain Galton, upon the circumstances attending the accident which took place on the 8th ult. near Leeds, from a passenger train belonging to this Company having come into collision with a goods train belonging to the Midland Company; and I have to inform you, that the same shall be duly submitted to the Directors of this Company at their next meeting.

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

I have, &c.
WM. GRAY, jun.,
Secretary.

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Midland Railway.

APPENDIX No. 47.

MIDLAND RAILWAY.

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

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 Midland Railway Company, a copy of a report which their Lordships have received from the officer appointed by them to inquire into the circumstances attending the collision which occurred on the Midland Railway, at Broughton, on the 27th ultimo.

My Lords direct me to observe, that although it appears that this collision was directly attributable to the neglect of the driver in charge of the engine to which was attached the fast passenger train, they regret that they cannot exonerate the management of the Midland Railway from all blame with respect to this collision.

My Lords direct me to request that you will bring to the especial attention of the Directors the very great irregularity of all the trains referred to in his report by the inspecting officer.

First, it appears that the goods train was delayed at the commencement of its journey in consequence of the imperfect arrangements at Derby, the station from which it first started, and the want of sufficient accommodation for the traffic thereat; for although the engine was ready to proceed with the train, the driver was unable to get it out of the siding in which it was, so as to attach it to the train, in consequence of the siding being obstructed by waggons and goods.

It also appears that the goods train was detained a considerable time at Derby, merely for the purpose of allowing a new engine to be conveyed by it to Rugby, which new engine was not to be used in drawing the train, but was being taken there merely for the convenience of the Company.

It appears, also, that the fast passenger train, which was already considerably behind its time, was detained at the Leicester station on account of a deficiency of water in the tank erected for the supply of locomotives at Leicester, one of the principal stations on the line.

My Lords direct me to request you to urge upon the Directors the necessity of preserving, as far as practicable, strict punctuality with all the trains upon their railways; and I am to express their regret that, after the repeated warnings which the Directors have received on this subject, enforced both by accidents and by communications from their Lordships, any such causes of delay as those above enumerated should have been allowed to continue upon the lines of the Midland Railway Company.

My Lords direct me to observe, that although they trust the Directors will use their utmost endeavours to enforce punctuality upon their lines, they are desirous that the recommendation of their officer as to the exhibition, in some conspicuous place in the principal stations, of the times of departure of trains from other stations, as ascertained by the electric telegraph, should receive their attentive consideration.

My Lords also direct me to request that you will call the attention of the Directors to the conduct of the station master at Leicester, and of the guard of the goods train, both of whom appear to have acted in a manner deserving of severe reprehension; the former for the loose and highly improper manner in which he gave instructions to the guard as to the movement of his train, and the latter as to the management of his train at Leicester and at Broughton.

Although the station master appears, from the statement in the report, so clearly blameable for his conduct at Leicester, my Lords cannot exonerate the guard from a charge of a least want of judgment in obeying the lax instructions given to him by the station master, to whom it would appear he was not bound to apply for instructions, before starting his train from the Leicester goods station, which is situated at some distance from the passenger station.

With reference to the conduct of the guard at Broughton, my Lords have to observe, that although in the present instance this man was to blame for not immediately shunting his train, in conformity with the regulations of the Company, when, if he had considered, he

have known that the fast train must have been close after him, my Lords are of opinion that it would tend much to the safety of the trains if more explicit instructions were framed under the guidance of the guards and servants of the Company than those contained in the printed regulations, which appear to my Lords inadequate to provide for the safety and proximity of trains following each other at different speeds.

It appears, according to the printed regulations, that the goods guard might have started the train from Leicester, provided there had been an interval of at least ten minutes before the next passenger train was due at that station.

The time required by the goods train to travel from Leicester to Broughton was forty-one minutes, whereas the time allowed for the fast train was fourteen minutes, and the time actually consumed by it on the occasion in question was nineteen minutes. From this statement it would appear that a strict compliance with the Company's regulations under these circumstances would have subjected the passenger train to a great delay, combined with a great risk of a collision.

I have, &c.

Secretary to the
Midland Railway Company.

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

Appendix No. 47

ACCIDENTS.

Midland Railway.

January 19, 1853.

I HAVE the honour to inform you that, in compliance with the instructions contained in your letter of the 6th instant, I have inquired into the circumstances attending the accident which occurred on the Midland Railway at the Broughton Station on the 27th inst. This station is situated between Leicester and Rugby, at about nine miles from Leicester; it is a small ordinary roadside passenger station, at the southern end of which there is a goods siding by the side of the up line, and at about one third of a mile from the station on the south side there is a shunting siding for up trains; on the north there is an ordinary signal placed at a distance of 600 yards from the station; this signal is visible from a further distance of 500 yards, and hence anything standing at the station is provided for a distance of nearly 1,100 yards from approaching up trains; the station signal, however, is only visible for a distance of nearly 500 yards.

On the 27th instant the goods train timed to leave Derby at 7.45 A.M. and to arrive at Rugby at 12 noon was detained at Derby till 8.50 A.M., and did not reach Leicester till 11.45 A.M., instead of 10.26 A.M.; and thus, in addition to the delay in starting, they lost 14 minutes between Derby and Leicester. The train did not at any time exceed twenty-waggons, and the loss of time on the road was occasioned by the wind and weather.

After taking off and putting on waggons and after taking water, the train was ready to proceed from Leicester at 12.30; but the passenger train which is timed to leave Derby at 1 A.M. and to call at all stations is due at Leicester at 12.30; and as this train had not yet started, the guard states that he went to the electric telegraph office to inquire where it was, but found the door shut, and as he did not see the station master any where about, he ordered his goods train to wait. This passenger train came in at 1.27 P.M. The fast passenger train which is timed to leave Derby at 12.50 is due at Leicester at 1.38; and on the arrival of the slow passenger train the station master ascertained by telegraph that the fast train had not left Derby till 1.5 P.M., or 15 minutes late, and therefore it would not probably arrive at Leicester until 1.53, or leave Leicester until 1.55. The slow passenger train started at 1.36, and just as it was leaving, the goods guard asked the station master when the fast train would arrive, as he had been waiting for more than an hour. The station master appears to have said that the fast train had left Derby at 1.5 P.M., and would not arrive for about half an hour, and recommended him to go on to Broughton.

The station master appears to have calculated the half hour from the time when he was required from the telegraph clerk on the arrival of the slow train, and not to have taken into account the time spent by that train at the station; in reality, the passenger train having left Derby 15 minutes late was due to leave Leicester also 15 minutes late, or at 1.53, and therefore the goods train, which left Leicester at 1.45 P.M., left within 10 minutes of the time when the passenger train was due to leave. The goods train arrived at Broughton at 2.25 P.M., and thus accomplished the distance in 40 minutes. The time allowed for the fast passenger train between Leicester and Broughton is 14 minutes; and hence, even assuming that the fast train did not leave Leicester until half an hour after the goods train, the time at which it would be due at Broughton would be $30 + 14 = 44$ minutes after the goods train left Leicester, or 4 minutes after the arrival of the goods train at Broughton. This was the time by which the guard, upon the authority of the station master at Leicester, might have regulated his movements. Upon the arrival of the fast train at Broughton both the station signal and the distant signal appear to have been inhibited, and the guard allowed the engine to be detached to take one waggon into a siding and to take out another, instead of causing the train to be immediately shunted to permit the fast train to pass. Just as the engine was coming out of the siding with this waggon the fast train approached; the driver appears to have run past the distant signal without observing it; upon this point, however, I have no evidence, as the driver has absconded. The fireman was occupied in selecting small coke for the fire, and the guard was not looking out on that side at the time. On coming in sight of the station signal, within 500 yards of the station, the driver became aware of the obstruction, and used all

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his endeavours to stop. The train consisted of six passenger carriages and two guards vans, one of which was next the engine and the other in rear, and there were two guards; the consequence of this ample supply of break power was, that the force of the shock of the collision was very much mitigated.

In the first place, the cause of this accident was the neglect of the signal by the engine driver.

In the next place, it appears from the regulations of the Company, that the trains are started by the guard after he has communicated with the station master. At Leicester the goods department is situated at some little distance from the passenger station, and the goods guard does not necessarily communicate with the passenger station, but is responsible for the starting of the goods trains. He may obtain information from the station master or from the telegraph office; but he is bound to keep his train out of the way of passenger trains, and to shunt his train at least ten minutes *before a passenger train is due*, and to wait until five minutes after the train has passed. In the present instance the slow passenger train started from Leicester at 1.36. If the goods train had followed at the five minutes interval, viz., at 1.41, there would have been a minute or two beyond the ten minutes for shunting (allowed by the regulations) between the departure of the goods train and the time at which the fast train was due to arrive, viz., 1.53; as it was, he started at 1.45, or only eight minutes before its time of arrival, or ten minutes before its time of departure. The station master told the guard that there was half an hour, and he also mentioned the time of the train's departure from Derby. Now, since the guard is responsible for the safety of his train, he would have acted with more intelligence had he made himself fully acquainted with the movements of the passenger trains; but he was justified in assuming that the correct time was mentioned by the station master at Leicester, and therefore a very great degree of blame attaches to this latter for not having noted with greater accuracy the time at which the express train was to be expected.

3dly. The guard is very much to be blamed for not having shunted his train directly he arrived at Broughton, for it appears that the fast train arrived at Leicester at two o'clock instead of 1.53, or fifteen minutes after the departure of the slow train; it was detained there nine minutes in consequence of the water tank at the south end of the platform to which the engine first applied being empty, and it being therefore necessary to back the train to one at the north end. The train, therefore, left Leicester at 2.9 or twenty-four minutes after the departure of the goods train, and it took nineteen minutes to run to Broughton instead of fourteen, which is the time allowed in the time tables; by which means it arrived at that station at 2.28, or forty-three minutes after the departure of the goods train from Leicester, or within one minute of the time at which the guard ought to have expected it, assuming that there would be half an hour between the times of the trains leaving Leicester.

4thly. I have to draw attention to the unpunctuality of the trains; all the three trains of which mention is made in this report were more or less unpunctual.

The goods train was the most so, both as regards its starting and its journey. The delay of one hour and five minutes at starting was stated to be due to the locomotive department, and of this time twenty-five minutes were occupied in waiting for the engine, and the remainder of the time in waiting for a new engine which was to be conveyed by the train to Rugby, but which was not ready, and which did not go after all. The engine driver who kept the train waiting for twenty-five minutes, stated that his engine was ready with coke and water, &c. &c., five minutes before train time, but was delayed by other engines which were waiting to take coke, and further delayed by a goods train standing in the yard, also requiring an engine; and it appears that the large amount of traffic at the Derby station necessitates that lines of rails originally appropriated to engines should be used occasionally for goods trains, and that the station accommodation is insufficient.

It is very objectionable that the punctuality of trains should be interfered with from this cause, and it is one which ought to be removed as soon as possible.

I have, in the next place, to observe upon the use of the electric telegraph in connexion with the working of the line.

It is stated that the servants of the Company have orders to avail themselves of it at all principal stations; of these, Leicester is undoubtedly one.

In the present instance the guard, although he says he went to the electric telegraph office as soon as his train was ready to start at 12.30, does not seem to have given himself much trouble about ascertaining the position of the passenger train then due; he said the office was shut, and the station master not to be found; the passenger train did not arrive for nearly an hour. The telegraph clerk appears to have been out of his office for a short time washing his batteries; but he states he was near at hand to work the telegraph, if required, and the station master was at the station, although not on the platform. If the telegraph had been employed on the present occasion to learn the position of the eleven o'clock passenger train from Derby, the goods train might have proceeded before its arrival at Leicester, and the accident would thus have been avoided. Want of punctuality is a great element of danger on railways, and since goods trains are obliged to shunt to allow passenger trains to pass, the unpunctuality of passenger trains proportionately increases the unpunctuality of goods trains. The electric telegraph offers a means of remedying to some extent this evil; and it appears, therefore, to be deserving of the consideration of the Midland Railway Company, whether it would not be desirable to enforce,

at each station into which the telegraph wires are conveyed, a general system of causing the actual times to be displayed at which all passengers trains *at least* leave certain other stations.

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

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

*Railway Department, Board of Trade,
Whitehall April 4, 1853.*

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you, with reference to your letter of the 18th February, a further report by Captain Galton relative to the use of the electric telegraph, which my Lords are desirous should receive the consideration of the Directors.

With respect to the concluding paragraph in your letter, in which, with reference to an observation in my letter of the 25th January, it is stated that the rule of the Company respecting goods trains being got out of the way of passenger trains does not permit the guard of a goods train to leave a siding, when there is a greater interval than ten minutes before a passenger train, unless he finds that he can reach another siding and shunt his train there ten minutes before the passenger train is due at that siding, my Lords direct me to observe, that upon examination of the Company's book of regulations there does not appear to be any such rule as that quoted by you; and further, that the rule as given in your letter does not appear to their Lordships sufficient to provide for the safety of trains, as the guard of a goods train cannot be considered a competent person to judge whether an engine can go to another siding with a train and there shunt, in a time to be computed by him from an examination of the time tables.

It remains only for my Lords to repeat their opinion, as expressed in my former communication, that it would tend much to the safety of trains, if better regulations were framed for the guidance of the guards and servants of the Company than those contained in the printed regulations, which appear to my Lords inadequate to provide for the safety and regularity of trains following each other at different speeds.

*The Secretary of the
Midland Railway Company.*

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

SIR,

February 28, 1853.

WITH reference to the remark in the letter from the Midland Railway Company of the 18th instant, commenting upon the suggestion as to telegraphing trains, contained in my report on the accident at Broughton on the Midland Railway, which letter has been referred to me by the Lords of the Committee of Privy Council for Trade, I have to observe, that inasmuch as the telegraph is used very extensively on some lines of railway, it does not appear that there is anything inherent in the telegraph as at present constructed which renders its operations too uncertain, when used over long lengths, to be depended upon. The greatest length on the part I alluded to is perhaps 20 miles, and the uncertainty mentioned by Mr. Bell must be caused chiefly by defective insulation, which a trifling expense and attention to the wires would remedy, and any other causes of uncertainty would occur too rarely to interrupt seriously the system, which after all is only an auxiliary to the working of the line. But the increased safety which a complete system of telegraphing trains from station to station would ensure, as well as the saving in working expenses which such a system would effect, would far more than compensate for any additional outlay which it might necessitate at first, or for any apparent difficulties which might require to be overcome in establishing the system.

In illustration of the mode in use on some lines of railway for telegraphing trains, I have appended a copy of an abstract which I have procured from the South Eastern Railway Company. The columns are filled in for an up and down train; each station has a book ruled and headed similar to the abstract, and the up and down trains are entered in order, as also the hours at which signals are received and forwarded; an abstract is made by each station master from his book in a similar form to the enclosed, and sent daily to the superintendent of telegraphs, who compares the entries and reports irregularities, and omissions, unless accounted for, are punished by fines; the column of remarks enables the superintendent of telegraphs to know the condition of each instrument daily.

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

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

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Midland Railway.

SOUTH EASTERN RAILWAY.

Daily Abstract from Train Signal Book.

From Edenbridge Station to Superintendent of Telegraphs, Saturday 26th day of February 1853.

DOWN TRAINS.

Description of Train.	Signal received from Godstone that Train had left.	Signalled to Godstone that Train had arrived.	Signalled to Peshurst that Train had left.	Signal received from Peshurst that Train had arrived.	Remarks.
9.30 a.m.	10.42	10.54	10.55	11.9	

UP TRAINS.

Description of Train.	Signal received from Peshurst that Train had left.	Signalled to Peshurst that Train had arrived.	Signalled to Godstone that Train had left.	Signal received from Godstone that Train had arrived.	Remarks.
7.0 a.m.	—	9.38	9.39	9.50	No signal from Peshurst.

(Signed) *A.B., Station Master.*

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Monkland Railways.

APPENDIX No. 48.

MONKLAND RAILWAYS.

*Railway Department, Board of Trade,
Whitehall, May 22, 1852.*

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 Monkland Railways Company, a copy of the report their Lordships have received from the officer appointed by them to inquire into the circumstances which attended a collision that occurred on the 13th ultimo, on the Monkland Railway.

My Lords direct me to request that you will call the especial attention of the Directors to the observations in the report upon the following points:

1st. with reference to the necessity of a regulation being adopted and strictly enforced, prohibiting drivers of engines from leaving stations with trains without the permission of the station master.

My Lords direct me to observe that a regulation of this nature appears essential upon all railways, but more particularly upon one of the character of the Monkland Railways, which is laid in part with a single line.

2d. As to the erection of efficient signals at all stations at which they do not at present exist.

3d. As to the electric telegraph, the advisability of the adoption of which cannot but be evident upon a railway of this nature.

4th. As to the erection of clocks at stations.

My Lords direct me to request that you will call these observations to the immediate attention of the Directors, in the hope that they will give them their serious consideration; for although the chief part of the traffic upon the Monkland Railway consists in the conveyance of minerals, still as the Company convey passengers by two trains each way daily, it appears essential that every requisite precaution should be taken to ensure the safety of those trains; and any measures adopted with this view must also tend to the safety of the persons who conduct the mineral traffic.

I have, &c.

*The Secretary to the
Monkland Railways Company.*

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

SIR,

May 19, 1852.

I HAVE the honour to inform you that I have inquired into the circumstances attending the accident which occurred on the Monkland Railway on the 13th ultimo, from a collision between an engine and a passenger train, and to lay before you the following report thereon.

The Monkland Railway is chiefly a mineral railway, commencing near Airdrie and terminating at Borrowstounness on the Firth of Forth, a branch connects the line with the