

loose and laid them on the foot plate of the engine, and proceeded on his journey, as he considered that the engine was then in a fit state to go on. When he got to Ramsbottom Station he again examined the engine and found that it was all right, and he did the same at Bury with a similar result. He left the plates of the inside bearing spring at Bury, and desired that another engine might be got ready for him for another train at 2.0 p.m. in place of the engine he was then driving, so that the inside bearing spring might be repaired.

This train, which then consisted of engine and tender and 11 vehicles, including 2 breaks with 2 guards in them, left Bury for Manchester at 10.54 a.m., or 14 minutes late, and when it had got about $1\frac{1}{2}$ miles south of Bury and was travelling it is said at the rate of 30 miles an hour, the driver again heard a noise beneath the engine, and he once more sounded the whistle for the guards' breaks and proceeded to stop the train, and had just if not quite brought it to a stand still, when it was overtaken and run into by an engine with a goods heavy break van behind it, which was following this train from Bury to Radcliffe Bridge for the express purpose of assisting it up the incline of 1 in 120, of about half a mile in length from Radcliffe Bridge to Ringley. The shock is admitted to have been a smart one, although no vehicle was thrown off the rails; but the last carriage, a new first-class, was a good deal damaged, and a second-class carriage in front of it had the body shifted on its frame. The driver (Snape) of the following engine thinks he was running 20 miles an hour when the collision took place, but judging from the effects on the carriages of the passenger train, I believe that he must have over estimated the rate at which he was travelling.

I must now explain how it happened that this engine followed the passenger train so closely. The East Lancashire Section of the Lancashire and Yorkshire Railway not long since lost its locomotive superintendent, and the present superintendent who was then new to the duties and work on the line, gave the following written order on the 26th June to an engine driver of the name of Samuel Ramsbottom, who was temporarily in charge of the Zamiel engine, in consequence of the regular driver of that engine being away from his work on account of illness.

" Lancashire and Yorkshire Railway,
" Locomotive Department,
" Bury, Lancashire,
" June 26th, 1865.

" SAMUEL RAMSBOTTOM, Engineman.

" TAKE Notice that tomorrow (Tuesday) the 27th inst. you will have to bank up the train leaving Bury at 10.40 a.m. from Radcliffe to Ringley with engine Zamiel.

" Yours, &c.

" J. JACQUES,
L. C."

" Acknowledge receipt.

I should also explain that Tuesday is market day, and this particular train is on that day in the week heavier than usual. The engine driver Ramsbottom understood by this order that he was to follow the passenger train from Bury to Radcliffe Bridge, where it is appointed to stop, and then to assist it up the

incline to Ringley, instead of proceeding to his regular work between Radcliffe Bridge and Ringley, and at the proper hour on the 27th June to assist the passenger train from Radcliffe Bridge up the incline. He also understood the order to be a prospective one for each succeeding Tuesday, although it is difficult to comprehend how it could be so interpreted. During the three succeeding weeks he was not working the Zamiel engine on the Tuesday, but the fireman remained with her, and in consequence the same engine followed the 10.40 a.m. passenger train from Bury to Radcliffe Bridge, and from thence up the incline behind the passenger train. On Tuesday the 25th July, Ramsbottom was again in charge of the Zamiel engine and he did as before; and on the 31st July, the regular driver of the engine (Snape) returned to his duty, and on the following morning he was told, both by his fireman and by Ramsbottom, what he was to do; and he proceeded to do it, with the result, a collision, which I have already described.

The driver (Snape) of the Zamiel engine complains that he was not told before he left Bury that something had been found wrong with the train engine at Baxenden, and that the plates of one of the springs had been left at Bury Station. It is quite certain that he did not expect that the passenger train would be stopped before it reached Radcliffe Bridge, 3 miles from Bury, and I think equally clear that he was not keeping a good look out ahead. He says that he followed the passenger train all the way and kept losing ground so that he might be 150 yards behind it when it passed under an overbridge where the driver of the passenger train began to stop his train, and at this point or near it he lost sight of the passenger train; but it is certain that at this particular spot the train in front could be seen from the following engine for a distance of more than 300 yards, and if he had been keeping a sharp look out and was not running, as he states, more than 25 miles an hour, he need have had no difficulty in pulling up with a break on the tender and a heavy goods break behind, without coming into collision with the passenger train.

The collision was evidently caused by the driver's neglect, but the fact is, that the engine should not have been permitted to follow the passenger train from Bury to Radcliffe Bridge at all, much less for 6 consecutive weeks, neither should such an order as I have quoted have been given at all, except in compliance with a requisition from the traffic superintendent, who was actually in the train on the day of the accident, and did not know that any engine had been detailed to assist the passenger train up the incline from Radcliffe to Ringley. Indeed it is very doubtful whether it was required at all on any of those days.

I have only to add that the propelling of trains up inclines by means of an engine behind is in my opinion most objectionable, and almost certain in the event of any mishap occurring to a vehicle in the front part of the train, largely to increase the danger to the passengers.

I have, &c.

W. YOLLAND,
Colonel.

The Secretary
Board of Trade,
Whitehall.

LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade
(Railway Department),
Whitehall, 21st October 1865.

SIR,

I AM directed by the Lords of the Committee of Privy Council of Trade to transmit to you 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 that occurred on the 25th September between a passenger train and a coal train at Miles Platting, and to request

that, in laying this report before the Directors of the Lancashire and Yorkshire Railway Company, you will call their attention to the suggestions made by the inspecting officer relative to the mode of working the Miles Platting incline.

I am, &c.

The Secretary of the
Lancashire and Yorkshire
Railway Company.

W. D. FANE.

Peterborough,
13th October 1865.

SIR,

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 collision that occurred on the 25th ultimo between a passenger train and a coal train, at Miles Platting, on the Lancashire and Yorkshire Railway.

Between the Victoria station at Manchester and Miles Platting there is a steep incline, containing gradients of 1 in 59 for 68 chains, and 1 in 49 for 35 chains in length. On the evening in question, the 6.40 p.m. passenger train from Manchester for Bradford started from the Victoria Station at 6.43, consisting of an engine and tender, two horse-boxes, five carriages, and a van; and it was pushed up the incline by an assisting engine. As it approached the summit the driver of the leading engine observed that the signal was at danger, and he shut off his steam, and whistled for it to be taken off. He shortly afterwards perceived that there was an engine some 20 yards in front of him, and he whistled for the breaks just before he came into collision with it,—at a speed which he describes to have been about 4, but which was more probably 6 or 8 miles an hour.

There were two guards sorting letters and parcels in the van as this train ascended the incline. On hearing the break-whistle from the engine they endeavoured at once to reach their break-handle, but they were thrown down in the attempt. The van and three carriages were coupled together with Fay's continuous breaks, and the body of the van having been shifted on the framing, and otherwise damaged, the break would not act after the collision. Two shocks were experienced, one when the train ran against the engine in front of it, and a second (which was more violent, and from the opposite direction,) when the assisting engine came into collision with the van behind it. The assisting engine was not coupled to the train. The driver of this engine shut off his steam on hearing the driver of the leading engine whistle, and his fireman tried to apply the tender break. He dropped a few yards behind before the train was suddenly brought to a stand, and his engine then necessarily ran against the break-van.

The engines with the passenger train do not appear to have been damaged, any more than the two leading carriages. But the bodies of the third and fourth carriages were shifted backwards by the second shock upon their framings. The fourth, a first-class carriage, which was provided with india-rubber pads between the body and the framing, was not damaged. Out of about 80 passengers, 10 were unfortunately more or less injured, but none very seriously.

The engine with which the passenger train thus came into collision was one of two which were employed to push a goods train up the bank. This train left Salford at 6.10, composed of an engine and tender, 25 loaded and 6 empty waggons, a break-van, and one assisting engine. It was joined by a second assisting engine at the Victoria Station, and proceeded in due course towards Miles Platting, until it was stopped at the summit of the bank by signal, because a goods train which was shunting at the station obstructed the main line. The second assisting engine of this train was brought to a stand 66 yards outside of the signal, which was itself 60 yards from the hut at the top of the incline. The leading driver of the passenger train states that there were no lights at the back of the tender which he struck, and that as it was quite dark he only discovered it

when he was 20 yards from it. The driver of the last engine of the goods train states that he had placed his gauge lamp on the weather board of his engine, so as to show a red light down the incline, and that there was a lamp at the back of his tender, though he did not look before the collision to see whether it was burning. The fireman admits that it was not lighted, and says the driver told him, in reply to a question on the subject, that as they were only going to the top of the bank (on their last journey for the day) it would not be necessary to light it.

The goods guard states that he was standing on the side of his van for the whole of the seven minutes during which his train was kept waiting before the collision. He saw the passenger train approaching when it was about 200 yards from him, and he held his hand-lamp in the direction of the engine-driver of that train, though he thought the side lamps on his van (which were in front of the assisting engines, and only one of which could have been visible on account of a curve in the line) were sufficient to stop him.

It is plain that this goods train was standing on the incline at a time when the passenger train was due, without any proper signals having been displayed from the tender which was at the tail of it, without any fixed signal behind it, and without any one belonging to it having gone back for its protection. The guard of the goods train and the driver of the second assisting engine are both to blame for not having seen that it was properly protected; and as trains are liable to be stopped in such a position, a distant signal, worked by a wire from the summit, should be erected in a convenient situation, 500 or 600 yards down the incline.

It is for many reasons desirable to avoid stopping the trains on the incline as far as is possible. But at present the confined state of the Miles Platting goods yard renders shunting on the main line continually necessary. The importance of the station will best be understood from the fact that 225 trains pass it, besides special trains and engines, daily. It is very necessary that extra sidings should be formed at Miles Platting, on which shunting may be carried on without obstructing the main line.

The mode of working the incline is far from satisfactory in another respect. An instrument has, it is true, been lately supplied by which the signalman and pointman at the entrance to the Victoria Station, at the bottom of the incline, is informed of the description of any engine or train that starts towards him from the top. But there is no restriction as to the line being clear, or as to the number of engines or trains that may be upon the incline at a time. The incline being only a mile and a quarter long, the gradients being, as I have already stated, 1 in 49 and 1 in 59, and the traffic being enormous, both as to the size and the number of the trains, it would tend very much towards safety in working if telegraph speaking and train instruments were furnished to the signalmen at the top and bottom respectively, and if they were not permitted to start a train from the summit for the Victoria Station until after the previous train had been safely disposed of there, and vice versa. If it were considered necessary to allow more than one engine or train upon the incline at a time, an intermediate telegraph-box might be established, and the spaces above and below it be worked similarly, on what is called the "block system."

I have, &c.

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

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