

CALEDONIAN RAILWAY.

Board of Trade
(*Railway Department*),
Whitehall, 24th February 1868.

SIR, I AM directed by the Board of Trade to transmit to you, to be laid before the Directors of the Caledonian Railway Company [Glasgow and Paisley Railway Joint Committee], the enclosed copy of the report made by Colonel Rich, R.E., the officer appointed by the Board of Trade to inquire into the circumstances connected with the accident which occurred on the 27th ultimo to a passenger train at the Glasgow Bridge Station of the Glasgow and Paisley Joint Railway, of which a return was made by the Caledonian Railway Company.

I am, &c.

R. G. W. HERBERT.

The Secretary of the
Caledonian
Railway Company.

The Secretary of the
Glasgow and Paisley Railway
Joint Committee.

Board of Trade,
18th February 1868.

SIR, IN compliance with the instructions contained in your minute of the 7th 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 accident to a Caledonian Railway Company's train that occurred on the 27th ultimo at Bridge Station, Glasgow, of the Glasgow and Paisley Joint Railway.

A passenger train, belonging to the Caledonian Railway Company, ran against the stationary buffers at the end of the station, and lifted them out of their place.

Fourteen passengers have complained of being injured.

The injuries, I am informed, consist of slight cuts and bruises.

A train consisting of an engine and tender, a third class break carriage (with a guard in it), a third class, a first class, two third class, two first class, two third class carriages, and a guard's break van (with a

guard in it), left Greenock for Glasgow at 10.30. a.m. on the day in question.

The train left Paisley at 11.14 a.m., four minutes late, and travelled safely to Glasgow, but the driver was unable to check the speed of the train on entering the station, and the engine ran against the buffers at the end of the station platform.

The train arrived at Bridge Street Station, Glasgow, two minutes late. The speed of the train on entering the station is stated to have been about the same as usual, or rather, as great as was usual, at such times as it came in quickest, viz., about six miles per hour.

The driver reversed his engine, which had two wheels at each side coupled together. The fireman and the two guards applied their breaks, and the foreman of porters at the station, thinking the train might not stop in time, jumped into a break carriage about the centre of the train and applied the breaks, but the engine ran against the buffers, at a speed variously estimated, as one to three miles per hour, and lifted the buffers out of their places.

The driver bears a good character, and it is stated that the rails were in a very bad state, and that the breaks did not act well.

The state of the rails should have made the driver more careful. It appears, however, that he had less break power than he was aware of, as one of the cogs of the pinion of the leading break carriage had broken at Port Glasgow, and consequently the break would not act. There appears also to be some doubt as to the blocks of the break van at the tail of the train having been in good working order.

The buffer beam and one buffer of the engine were broken. None of the carriages were injured, and none of them left the rails.

The accident was caused by the driver entering Bridge Street Station, Glasgow, at too great speed.

I have, &c.

F. H. RICH,
Lieut.-Col., R.E.

The Secretary of the
Board of Trade
(*Railway Department*),
Whitehall.

CAMBRIAN RAILWAY.

Board of Trade
(*Railway Department*),
Whitehall, 17th February 1868.

SIR, I AM directed by the Board of Trade to transmit to you, to be laid before the Directors of the Cambrian Railway Company, the enclosed copy of the report made by Captain Tyler, the officer appointed by the Board of Trade to inquire into the circumstances connected with the accident which occurred to a train on the 1st instant at the bridge over the Severn near Caersws, and which was attended with death to the driver and fireman.

I am to express the hope of the Board of Trade that the directors will see fit to adopt the precaution suggested by Captain Tyler for preventing similar accidents in future.

I am, &c.

R. G. W. HERBERT.

The Secretary of the
Cambrian
Railway Company.

Board of Trade
(*Railway Department*),

SIR, 1, *Whitehall, 11th February 1868.*

IN compliance with the instructions contained in your minute of the 3rd instant, I have the honour to report, for the information of the Board of Trade, the result of my inquiry into the circumstances which

attended the accident that occurred on the 1st instant, near Caersws, on the Cambrian Railway.

The 3.30 a.m. mixed mail and goods train from Shrewsbury for Welshpool, Newtown, Moat Lane, and Aberystwith, was detained at Shrewsbury for half an hour on the morning in question, waiting for the mails from the London and North-Western Railway. It was due to leave Newtown at 6 a.m., but it only reached that station at 6.25, and left it again at 6.30; and it reached Moat Lane, which is 4½ miles from Newtown, at 6.45. It started again from Moat Lane at 7.10, consisting of an engine and tender, six empty and four loaded trucks, a goods van, two passenger carriages, and a mail van; and the engine driver proceeded very cautiously—at a speed stated to have been about 5 miles an hour—towards Caersws, a mile from Moat Lane. As the train approached a viaduct across the Severn on the east of Caersws, the engine left the rails at 7.14, and turned over on its left side on the south of the embankment leading to that viaduct. The tender, following the engine, and impelled by its own momentum and that of the train behind it, had its hind end tilted up, and came to a stand on its front end. These lay in the water, which had risen to an extraordinary height on either side of the embankment, and was still rising. A flour waggon behind them was also thrown off the line and into the water, and

two empty trucks mounted partly upon it, while the other vehicles remained on the rails.

The only passengers in the train were two timber-loaders, servants of the Company, on their way to Machynlleth, in one of the carriages. The guard in the goods van felt a violent shock, which stunned him for two or three minutes, and threw him on his back. On getting out of his van he stepped into the water, and seeing the engine in the water, he ran back to the mail van. The mail guard was also thrown on his back, and as soon as he could get out of his van, he met the goods guard coming towards him. The engine driver, Samuel Daniels, was jammed between the engine and the tender, and he appears to have been drowned in that position, though his head and part of his breast were visible above the water. The fireman, John Davies, fell also between the engine and the tender, but under the surface of the water; and he received a very extensive injury in the lower part of the abdomen, which was of itself sufficient to cause death.

These poor men had, as well as the goods guard, left Machynlleth at 3.30 that morning for Newtown, with the *up* mail and goods train. They found a heavy flood, which covered the line, between Talerddig and Carno, six or seven miles from Caersws, and the fire of the engine was nearly put out by it before they reached Carno. In approaching the Caersws viaduct on this *up* journey, at 5.38 a.m., the driver had slackened speed to about three miles an hour, had left his engine, and had walked in front of it for some little distance, signalling to the fireman with his hand lamp. He was no doubt induced to take this precaution, in consequence of his having found so much water on the line west of Carno, and was probably the more confident, in returning an hour and a half afterwards, in regard to the condition of that part of the line. It would have been well if his efforts had been seconded by those whose special duty it was to look after the safety of the permanent way and works.

The flood that occurred on that particular morning was the highest that had been known in the district for 16 years, and it was accompanied by one of the heaviest gales that ever visited this country. The embankment at the east end of the Caersws viaduct was afterwards found to have been damaged or carried away for a length of 48 feet and a maximum depth of 8 feet, which was nearly its full height. It was originally constructed of gravel and silt from the river, with stones of various sizes on its slopes and at its end. Some of the larger material at the end remained after the subsidence of the flood. The valley south of the viaduct and embankment having been transformed in the course of a few hours into a lake, by a rise of water of 11 or 12 feet, waves of considerable dimensions beat against the embankment, and the south corner of it at the east end of the viaduct was particularly exposed to the combined action of the flood, the gale, and the current. It is probable that only a part of the damage above specified was done to the embankment before the accident, as I learn that the flood was at its highest about 20 minutes afterwards. The only person who observed the danger

before the train came up was a day labourer in the employment of Mr. Kinsey, of Maesmawr, named Thomas Davies. He saw, as he walked along from the viaduct, that "the earth had passed off from under the sleepers for about eight or nine yards." Running forward, he met the train, and he called out to the engine driver, and held up his hand to point out the danger to him as he passed. But the driver, though he looked at him, did not take any notice of him, or do anything that he could see towards stopping the train. The wind was so high that the driver probably did not hear him calling, and he may have understood him to be pointing to the height of the water only.

The viaduct over the Severn is a timber one, of ordinary construction. There are four timber piles in each pier, and the permanent way is carried on double baulks of timber, one under the other. Struts have also been added below them for greater stiffness. There are eight river openings of 20 feet each, besides one at each end, adjoining the embankment. The struts have to some extent diminished the waterway in time of flood, but the viaduct was nevertheless uninjured by the action of the water on the present occasion. The Company now propose to increase the waterway by shortening the embankment, or rather by not filling up a portion of that which has been washed away. It is desirable that the new end of the embankment should be secured by stone pitching in a substantial manner, and after the experience of this accident, that the other end of the embankment should be similarly treated.

But these precautions should not be considered to do away with the necessity, which also exists, for increased vigilance on the part of the inspectors of permanent way and the platelayers. The district inspector for 37 miles of this part of the line lives at Caersws, and was there when the accident occurred. It would have been better, if he and his platelayers had been up and looking after the bridges, embankments, and permanent way, with a view to the safety of the trains, on such a morning. The printed regulations of the Company require that the whole line shall be inspected by the platelayers before 7 a.m. in summer and before 8 a.m. in winter. But something more is required in such an exceptional case as a flood of this description. A most serious accident may be caused by less extensive damage, and even by the washing away of the ballast for a short distance from under the sleepers. It is very necessary, on the occasion of such extraordinary floods, either that critical points should be watched by night as well as by day, under proper supervision, by a proportion of the platelayers, or that the working of the night traffic should be temporarily suspended; and I would recommend, in conclusion, that the Company's regulations should be revised with a special view to this requirement.

I have, &c.

H. W. TYLER.

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

LANCASHIRE AND YORKSHIRE RAILWAY.

*Board of Trade
(Railway Department),
Whitehall, 29th February 1868.*

SIR,

I AM directed by the Board of Trade to transmit to you, for the consideration of the Directors of the Lancashire and Yorkshire Railway Company, the enclosed copy of the report made by Colonel Yolland, the officer appointed by the Board of Trade to inquire into the circumstances connected with the collision which occurred on the 5th inst. near the Ossett Station on the Lancashire and Yorkshire Railway.

I have, &c.

R. G. W. HERBERT.

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

*Board of Trade,
(Railway Department),
Whitehall, 26th February 1868.*

SIR,

I HAVE the honour to state, for the information of the Board of Trade, in obedience to your minute of the 7th instant, the result of my inquiry into the circumstances which attended a collision, happily unattended with any fatal results, between a passenger train and a coal train, proceeding in opposite directions, between Horbury Junction and Horbury and Ossett station on the down line of the Lancashire and Yorkshire Railway, between Wakefield and Manchester, on the 5th instant, on which occasion about ten passengers are stated to have been injured, one of the number very seriously, and the guard of the passenger train was also hurt.