

LANCASHIRE AND YORKSHIRE RAILWAY.

Sir,

Edinburgh, 21st August 1872.

In compliance with the instructions contained in your minute of the 19th ult., I have the honour to report, for the information of the Board of Trade, the result of my enquiry into the circumstances connected with a collision which occurred on the 16th ult. at the Exchange station, Liverpool, on the Lancashire and Yorkshire Railway, between a passenger train and an engine.

Two passengers have complained of slight injury, and the fireman of one of the engines was shaken.

The arrival and departure of trains from the Exchange station is regulated by a signalman who occupies an elevated cabin (called the "middle" cabin) situated about 150 yards from the end of the platforms. In this cabin there are collected together, but not interlocked, seven point and seven signal levers. Outgoing trains depart from various platforms, provided with starting signals, worked from a cabin at the end of the centre platform; but no starting signal is lowered until the middle cabin signalman, in response to the whistle of the engineman wishing to come out, has lowered his main line signal. Every departing train has to pass over at least three pairs of facing points, one of which pairs, situated 25 yards outside the middle cabin and leading to a water column and turntable, is provided with an indicating arm fixed to the side of the cabin and visible from the platform lines.

The driver of the 1.30 p.m. train from Liverpool to Crosby, consisting of tender, engine, seven coaches and a van, the last five coupled with continuous breaks, whistled for the starting signals at about 1.30, and both platform and main line signals having been lowered he started at 1.31, not having noticed, by his own acknowledgment, the condition of the indicating signal attached to the points leading to the turntable; for as there are two other pairs of points without indicators he was in the habit, he says, of looking at the points themselves and taking them all in at one glance. On the present occasion, however, from some reason which he could not explain, he did not look at the points at all. He had just passed the middle signal cabin, having attained a speed of about 10 miles an hour, when he found his engine was entering the turntable line; he at once used every means in his power to stop, but before he could do so his engine came into collision with another engine standing at a water

column 35 yards from the points. The latter was driven over the turntable and against a pair of buffer stops at the other side of it, which it partially broke down, bulging a retaining wall which holds up the railway yard above the level of a street running beneath it. Had these buffer stops not been firmly secured the engine would no doubt have gone over into the street below. The engine attached to the train followed the other one up and remained close to it. Both engines had their buffers broken.

The fireman of the first engine was shaken, and his driver knocked down.

The signalman on duty in the middle cabin (Brown) had taken duty there for five years. He had commenced his work on the 19th ult. at 7 a.m. for an 8 hours spell; at about a quarter past one a train had arrived from Yorkshire, and to allow the engine of this train to go to the turntable Brown had propped over the turntable points with a stick, so as to leave him at liberty to attend to a pilot engine. When the Crosby engine-driver whistled for the starting signals, Brown quite forgetting that the turntable points were propped over, lowered his main line signal and only saw his mistake when the engine was entering the turntable siding.

The signalman on duty in the platform cabin lowered the starting signal for the Crosby train as soon as he saw the main signal fall. He did not notice what the point indicator was showing, as he was very busy at the time.

This collision was caused by the mistake of the signalman in the middle cabin in omitting to set the turntable facing points right for the main line before lowering his main line signal for the Crosby train. This mistake could not have been made had there been a properly arranged set of interlocked signals. These have I am informed been ordered for some time and will shortly be put up, and I would strongly recommend that, in carrying out the alterations, some of the existing facing points should be got rid of.

There was negligence on the part of the driver of the Crosby train in not looking ahead to see the condition of the facing points he was about to pass over.

I have, &c.,

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

C. S. HUTCHINSON,
Lieut.-Col. R.E.

LANCASHIRE AND YORKSHIRE RAILWAY.

*Board of Trade,
(Railway Department),
15th August 1872.*

Sir,

In compliance with the instructions contained in your minute of the 6th inst., 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 collision that occurred on the 31st ultimo, near Accrington station, on the Lancashire and Yorkshire Railway.

A bank engine, which was employed to run after trains and assist them up the incline towards Manchester, ran into a passenger train by going at too great speed. Several passengers are reported to have been shaken.

Accrington station is situated at the foot of an incline which rises 1 in 40 towards Manchester for about $2\frac{1}{2}$ miles.

When the trains that are going to Manchester consist of more than four or five coaches, they are assisted up the incline by what is called a bank engine.

The bank engine is stationed in the cattle siding at the east side of the railway. The Manchester trains

start from the opposite side of the platform to where the bank engine is kept waiting.

As soon as the passenger train gets clear of the platform on its road to Manchester, and before it attains much speed, the bank engine is intended to run out of the siding where it is kept, overtake the passenger train, and push it to the top of the bank.

On the day in question, the passenger train which is due to leave Accrington at 5.5 p.m. for Manchester consisted of an engine and tender, a guard's van with a guard, a first, a second, three thirds, a break-van with a second guard, a first, and a second-class carriage, coupled together in the order in which they are given. The two coaches in rear of each of the guard's vans were attached to them, with continuous breaks.

The train was five or ten minutes late in leaving Accrington. It came to a stand on the incline, when it had got about 700 yards from the station, as the bank engine had not got up to it at that time, and the engine in front of the train could not pull it any further.

The engine-driver of the bank engine had gone to fetch his tools off another engine that he had been

driving, and he had not returned to the bank engine when the passenger train left Accrington station. He returned to the bank engine immediately after getting his tools, and started in pursuit as soon as he could, but he did not get up to the passenger train till the latter had come to a stand, and the bank engine ran into the passenger train at a speed of four or five miles an hour. No damage was done to the stock. The driver of the front engine of the passenger train was trying to start at the moment that the bank engine came up, and the passenger train went forward on its journey as soon as the bank engine reached it. Neither of the engine-drivers appear to have been aware that there was anything the matter until they stopped at Baxenden, which is the next station to Accrington, when several of the passengers complained of being shaken.

The system of pushing trains up inclines with bank engines at the tail must always be attended with more or less danger, more particularly so, when the

bank engine has to overtake the trains while they are moving on the railway.

Accrington is a one-sided station, which serves the railways to Manchester, Preston, and Coine. Trains from these places are timed to meet at Accrington, and there is no means of placing the bank engine at the tail of the Manchester train before it leaves the platform.

In consequence of Accrington being a one-sided station, from whence railways diverge in three directions, all trains, except the trains to Manchester, are required to back into the station through facing points, or to back out of it through facing points. These operations, as well as banking up trains, must always be attended with danger.

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

I have, &c.,
F. H. RICH,
Lieut.-Col. R.E.

LANCASHIRE AND YORKSHIRE RAILWAY.

*Board of Trade,
(Railway Department),
14th August 1872.*

Sir, In compliance with the instructions contained in your minute of the 5th inst., 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 collision that occurred on the 3rd inst. at the junction with Agecroft sidings on the Lancashire and Yorkshire Railway.

A coal train that was leaving the sidings and going towards Manchester met the express train that is due to leave Manchester at 11.30 a.m. for Blackburn.

Four passengers were killed, two were dangerously injured, and ten others were more or less hurt.

Agecroft sidings are situated about a mile and a third to the north-west of Pendleton station. The junction of the sidings with the passenger lines is protected by home and distant signals that are worked from a cabin, which is situated opposite to the junction. The distant signal towards Manchester is placed about 540 yards to the south-east of the junction, and this signal can be seen for a distance of 529 yards by a driver who is approaching from that side.

The home signal cannot be seen for more than 260 yards before it is reached, by an engine-driver coming from the east, in consequence of a bridge over the railway that interferes with the view.

The railway has been undermined with coal workings, so that the home signals and cabin have sunk about five feet below their proper level, and the view of the home signal has thus been interfered with.

On the day in question a coal train that consisted of an engine and tender, four waggons of coal, and a break van, arrived from Clifton Hall, and was put into Agecroft sidings for the purpose of attaching six more waggons of coals that were to be taken on.

The coal train was kept about 55 minutes in the sidings, as there were so many trains passing on the railway, that the signalman on duty at the siding junction cabin could not allow it to come out. The signalman at last told the engine-driver that he was to be ready to follow the passenger train from Fleetwood to Manchester, which had just been telegraphed as having left Clifton junction.

As soon as the passenger train passed Agecroft cabin, the signalman put up his home and distant signals to danger, and gave a green flag hand signal to the driver of the coal train, to notify to him, that he was to bring his train out of the sidings and follow the train from Fleetwood. As the engine-driver of the coal train reached the passenger lines he observed the express train from Manchester running towards him at full speed. The engine of the express train was

only about 180 yards from the engine of the coal train at the time.

The express consisted of an engine and tender, a horse box, a third-class, a composite, two thirds, a composite, a first, a second-class carriage, and a break-van, coupled together in the order in which they are given. The guard in charge was travelling in the break-van, and the five coaches in front of the van were coupled to it with continuous breaks.

The engine-drivers of both trains appear to have noticed their danger at the same time, and the signalman, who also saw it, gave the driver of the coal train a signal to stop, and called to him to go back. The driver of the coal train succeeded in reducing the speed of his train from four to one mile an hour, and the engine-driver of the express train had reduced the speed of his train to about 20 miles an hour, when the collision occurred.

Both engines were thrown off the rails and much damaged. The engine of the coal train was turned partly round and some waggons were broken. The two front carriages of the passenger train were broken and some of the others were damaged.

The engine-driver of the coal train jumped off just before the collision. The fireman remained on the engine and was hurt. The driver and fireman of the express train were also hurt.

This melancholy accident appears to have been caused by the signalman on duty at Agecroft sidings, who did not wait a sufficient time, after placing his signals at danger, before he called to the driver of the coal train to leave the sidings.

This signalman, who appears to have been anxious to do his duty, should have satisfied himself that no train was approaching his station before he allowed the coal train to leave the sidings.

According to his own statement, he only put up his main-line signals about one minute before he called to the driver of the coal train to bring his train out of the siding. The express train must have been close to the distant signal at this time, and there appears to be no doubt that the engine-driver of the express train had got inside the distant signal before it was placed at danger.

If the view of the home signal had not been obstructed by the bridge, the engine-driver of the express would probably have been warned of his danger in sufficient time to stop his train, but he could not do so after he reached the over-bridge.

The up train from Fleetwood passed the down express at the distant signal, and possibly may have prevented the signalman at Agecroft from noticing that the express train was approaching. The signalman appears to have forgotten that the express was due. If he had allowed it to pass, the railway would have