

spoke in one of the driving wheels was broken, also the break irons, the life guards torn off, and the feed pipes damaged.

The train which had passed over this part of the down line next before the engines had been a Cheshire lines committee's goods train, at about 3.30 a.m. The driver of this train had observed nothing unusual as his engine passed the spot.

From a careful consideration of the evidence and circumstances connected with this accident I am of opinion that it was caused by the high speed at which the engines,—necessarily of an unsteady class, not suited for high speed,—were running. The evidence of the locomotive superintendent of the district, combined with that of the station-master at Fiddlers Ferry, makes the *average* speed between a point close to the shed from which they had started and Fiddlers Ferry, 30 miles an hour; and, again, the evidence of the driver and fireman of the 2nd engine, who would not be likely to underrate the speed, makes the *average* rate from the point of starting up to that of the accident 22½ miles per hour. Owing to the curved nature of the first part of the line it is not likely the

speed would have been so high as at the latter part where it is perfectly straight and level. Added to this, the engines were late, and the drivers were no doubt making the best of their way to Widnes. From some cause (perhaps a sudden shutting off of steam, towards which the evidence of the 2nd driver and the condition of the regulator and break of the 1st engine seem to point), when the speed was probably considerably over 30 miles an hour, oscillation was set up, as shown by the condition of the 105 yards of zigzag line; and from this the engines were unable to recover, but in consequence of it the leading one left the rails, followed by the 2nd.

The deceased driver had borne an excellent character; he was 27 years old, had been 18 months a driver, and 5 years and 2 months a fireman.

The fireman of the leading engine deserves great credit for having, notwithstanding his severe shock at once gone back to protect the line.

I have, &c.,

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

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

## LONDON AND NORTH-WESTERN RAILWAY.

Board of Trade,  
(Railway Department),  
Whitehall, 10th July 1872.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the instructions contained in your minute of the 6th ult., the result of my inquiry into the circumstances which attended a collision between a passenger and a coal train, that occurred on the 3rd ult., at the junction of the Leamington branch with the main line of the London and North-Western Railway, at the north end of the Rugby station, on which occasion four passengers and two servants of the Company are said to have been injured.

The Leamington branch is a single line, and it joins the main line by a double junction, rather more than 1,100 yards north of the north end of the down platform at Rugby station, and the junction is protected by up distant and up junction signals for the branch line; the latter placed about 90 yards north of the junction of the up branch and up main lines, and the former 475 yards outside the junction signal. The branch up distant-signal can be seen uninterruptedly for a distance of 1½ miles in approaching Rugby from Leamington; and there is a rising gradient of 1 in 269 for half a mile to the up distant-signal, and from thence it is level for 400 yards in approaching Rugby station.

The signal-box from which these signals are worked is situated about 100 yards nearer to the station than the actual junction.

The signalman on duty in this box informed me that he had set the down main line signals at "all right" for the 9.0 p.m. down mail train to pass about 11.10 on the night in question, and when he had done so, he heard three whistles sounded from the 9.35 p.m. up goods train from Leamington to Rugby, due at Rugby at 11.0 p.m. When these signals were sounded the branch line up distant and up junction signals were both on at danger against this goods train, which, however, continued to advance, and ran past both danger-signals, crossed the down main line, and stopped foul of the up main line, when it was run into by the 9.0 p.m. down mail train, about 11.14 p.m. Both engines were thrown off the rails, and the framing of the mail train engine was broken, and one of the coupling rods was bent. The footplate of the other engine was also damaged.

The 9.0 p.m. down mail train consisted of an engine and tender and 16 vehicles; and the driver

having received the "all right" signals, left Rugby station a few minutes after the proper time; and just before he reached the junction signal-box the home-signal was thrown up to "danger" against him, and he then did all in his power to stop, and had reduced his speed from 15 to 8 miles an hour before the collision took place. No blame attaches to any of the Company's servants with this mail train, or to the signalman on duty in the signal-box. They all appear to have done what they could to prevent the collision from taking place.

The goods train consisted of an engine and tender, 22 loaded and 9 empty waggons, including the break-van. It stopped at Dunchurch (where it was due at 10.40 p.m.) at 10.55, and left at 11.0 p.m., just a quarter of an hour late, according to the breaksmen.

I did not see the driver of this train, as he had been discharged by the Company, and had left Rugby; but the fireman informed me that he observed that the up distant-signal was on at danger against the goods train when they were about 300 yards outside of it, at which time they were running pretty sharp, or about 25 miles an hour; that the driver shut off the steam at that place, and he applied the tender break; that the driver went to the off side of the engine to look at the top clack valve, which was out of order, and had been out of order all day, and when the driver went to the side of the engine he opened the whistle for the signals to be taken off; that he reversed the engine when they were about opposite to the distant-signal, and turned on the steam the reverse way, but he had not time to whistle for the guard's break, and when the collision took place he was knocked off the footplate of the engine, stunned, and shook. He could not say what happened to the driver, as he did not return and assist in stopping the train.

The breaksmen states that he observed that the up distant-signal was on at danger when he was about 1,000 yards from it, and he applied his break; and it appears, further, that the goods train separated into two parts as it was approaching the junction, as the draw-bar of the seventh waggon from the break-van was pulled out, and when the collision took place the seventh waggon, and those behind it, were at a standstill, and separated from the eighth waggon by about 50 yards.

The locomotive superintendent of the district told me that the top clack valve was all right when he saw it, about three-quarters of an hour after the collision took place; that it was not screwed down, but there

were some appearances of something having been done to the screw. He also informed me that the driver was not incapable of doing his duty, but that he had been drinking to some extent.

There does not appear to be any doubt whatever that the cause of this collision was entirely due to the misconduct of the driver of the goods train, in not having his train under proper control as he approached

the up distant-signal on the branch line. His previous conduct, while employed as a driver in the Company's service since 1865, does not appear to have been satisfactory.

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

I have, &c.,  
W. YOLLAND,  
Colonel.

## LONDON AND NORTH-WESTERN RAILWAY.

*Board of Trade,  
(Railway Department),  
Whitehall, 16th July 1872.*

SIR, I HAVE the honour to report, for the information of the Board of Trade, in compliance with the instructions contained in your minute of the 27th ult., the result of my inquiry into the circumstances which attended the collision that occurred at Wednesbury station of the London and North-Western Railway, on the 22nd ult., between a passenger train and a waggon standing in a siding. Two passengers are stated to have been injured on this occasion.

It appears from the statement of the engine-driver of the 1.44 p.m. passenger train from James Bridge station to Wednesbury, that he had an engine and tender, and three carriages, including a break-van, in his train, and that as he approached Wednesbury station he found the distant-signal, worked from the Wednesbury goods yard signal-box, on at danger against him, and he whistled for it to be taken off, but ran past it, still standing at danger; he also found the home-signal standing at danger, but on whistling it was taken off; and the signalman waved him on with a green flag after he had lowered the signal. He says he was running with the steam off, down hill (1 in 100), and when the home-signal was taken off he turned on the steam again, to get into the station, and he was not aware that he was going wrong until he felt the engine turn off to the right into a siding, and he thinks he was running about four miles an hour when he ran into a waggon which had just been placed in this siding.

The buffer plank of the engine was broken, and the buffers were knocked off, as well as the buffers of the waggon, but nothing was thrown off the rails, and no carriages were damaged.

The goods yard signal-box is situated about 110 yards from the west end of the passenger platform, and the points leading into the siding into which the train ran, called the Crane siding, are situated about 28 yards outside of this signal-box, from which they are worked. The signalman on duty informed me that he had opened these points to enable a waggon to be drawn in by a horse, and when this was done his attention was called off by a Midland train, which was shunting in the goods yard, and he forgot to close the points, but left them standing open for the Crane

siding. He does not know whether the home-signal, which is about 180 yards from the signal-box, was off or on, but he admits that he called the driver on by waving a green flag.

The collision was directly caused by the signalman's mistake, but it could not have happened if the company had made proper arrangements.

The Tipton and Darlaston branches were opened for public traffic, after inspection in 1863, as a double line, with the sanction of the Board of Trade.

In May 1867 the London and North-Western Railway Company applied to the Board of Trade for their consent to the removal of one pair of rails, and to the branch being worked as a single line, after it had already been worked as a single line for upwards of three years; the question was referred to me for report, and I stated "that there were sidings and cross-over roads at several places on the line, with stations at each extremity and one intermediate station." After mentioning the number of trains I said, "I do not consider that while the present arrangements are continued there can be any difficulty and but little risk in working the traffic over a single line, on the train staff and ticket system, but I am at a loss to understand on what grounds their lordships are now asked to sanction what has been in operation for years. The unnecessary facing points should however be removed, and where they are continued it would be better to connect them with the working of the station-signals, so that these cannot be taken off until the points are set right for a train to pass."

The London and North-Western Railway Company do not appear to have paid any attention to these suggestions as far as Wednesbury station is concerned, or the present collision would not have taken place; although I am informed that a similar collision took place, nearly at the same spot, about twelve months since, due entirely to the same cause.

Fortunately, the disregard of these suggestions has not been attended with any very serious results in these instances.

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

I have, &c.,  
W. YOLLAND,  
Colonel.

## LONDON AND NORTH-WESTERN RAILWAY.

*Board of Trade,  
(Railway Department),  
Whitehall, 5th August 1872.*

SIR, I HAVE the honour to report, for the information of the Board of Trade, in compliance with the instructions contained in your minute of the 24th ult., the result of my investigation into the circumstances which attended the collision which occurred on the 21st ult. near Valley station, on the Chester and Holyhead section of the London and North-Western Railway,

between the Irish mail train and a train of empty waggons.

One passenger had his face cut, and four others were shaken. The driver, fireman, and front guard of the mail train, were all slightly injured.

Owing to an accident which had occurred on the 20th in a tunnel near Stafford, the Irish mail which left Euston on the evening of that day was delayed in its journey, and left Chester (having next to stop at Holyhead) at 1.58 a.m. on the 21st, an hour late.