

The
VIRTUAL MUSEUM
of the
LANCASHIRE & YORKSHIRE RAILWAY

Accident Reports.

26 January 1871

BoT Report into Accident at
Bradford.

(2 Pages).

fireman at the same time throwing another piece of coal through the van window; that upon this the guard got up to the wheel, and put his hands on as if going to apply the break, but did not do so, and rather seemed to turn it off; that at this time, the distance from the buffer stops being reduced to about a quarter of a mile, he (finding no dependence was to be placed on the guard) reversed his engine, and put steam against it, the speed being from 15 to 16 miles an hour, but that the speed did not appear to decrease till the engine came into collision with a pair of buffer stops at the end of a dock in which the train was intended to draw up. The driver jumped on to the platform about 12 yards from the buffer stops, fell on his knees, and was not hurt; the fireman jumped previously on to the ground; fell down, and was slightly injured. The guard remained in his van till the accident occurred, at about 6 or 7 minutes to 5.

The fireman's statement differs from the driver's as to the usual point for applying the tender and guard's breaks, and also as to the point at which the tender breaks were put on on the present occasion; this not having been done, according to him, until rather more than half way down the incline (the usual point for the application of both breaks), after which they were not released at all, and that though he used sand to the tender wheels the speed seemed rather to increase than diminish; the fireman's statement otherwise corroborates that of the driver.

The engine, after striking the buffer stops (which were of massive construction), knocked them away, mounted on a piece of pavement 9 ft. wide, connecting two platforms (one on each side of the dock), crossed it, and stopped with its front embedded in the wall and window of a porter's room, into which window the person who was killed was looking. The trailing wheels of the engine remained on the rails, likewise those of the tender and of the rest of the train. The left cylinder, left frame plate, and buffer beam of the engine were broken; and one carriage had the end of its framing injured.

A carriage inspector, who was standing on the platform 35 yards from the buffer stops, heard the engine whistling, and saw the train pass him at a speed of 15 to 16 miles an hour. The engine was reversed, with steam on, the tender breaks applied, but not the guard's breaks. He saw the guard Hill standing at his wheel motionless. He followed the train, and jumped into the van directly it stopped. Hill was still standing by the wheel, and he said to him, "Whatever have you been doing to come in like this?" Hill replied, "I don't know." He then tried the wheel, which was turned off, and found that it worked perfectly. (The van indeed was used again the same evening.) The inspector did not think the guard was the worse for drink, nor did he smell him of spirits, but said that he looked amazed. He had known him for seven or eight years, for the

last 13 months as passenger guard working in and out of Bradford, during which period he had made no mistake; he also informed me that about two years ago Hill had fallen from the station clock, since which time he had not been (according to the inspector) quite right in his head.

Directly after the accident Hill went up to the driver, and wanted to know what was the matter. The driver said, "You see what is the matter." Upon this Hill replied that he could not move his break wheel. The driver's impression was that Hill appeared peculiar, but not the worse for the liquor; that he did not smell of spirits, and appeared to walk steadily. He had worked with him three months previously, when he had made no mistake.

Sometime (half to three quarters of an hour) after the accident the fireman saw Hill, who went on to the foot plate of the engine, and wanted to know what was the matter. The fireman said that he did not smell of spirits, but seemed "beerified," and could not walk steady; that he accused Hill of having been asleep, which he did not deny, but said that he knew nothing about the accident.

Hill is about 25 years of age; had been a passenger guard about 13 months; had been recently ill with an abscess in his thigh, but had returned to duty the week before the accident. Nothing had been observed wrong with him during the previous part of the day, nor was there any misconduct recorded against him.

He was not brought before me for examination. He has been found guilty of manslaughter by a coroner's jury, and will therefore be tried at the forthcoming assizes.

There is no question but that this accident was caused by the failure of guard Hill to apply his breaks in descending the Bradford incline, after being warned to do so by the driver of his train. As to whether this failure was caused by drink or illness I have not sufficient evidence before me to determine.

This accident, like the one at Accrington in 1869, and many others, points to the great desideratum yet to be accomplished as regards continuous breaks, viz., the devising of some simple means by which the power of applying them may be placed in the hands of the driver as well as of the guard. Until this is done, all practicable mechanical means for the prevention of such accidents as the present will not have been tried.

Although there is nothing to show that in the present instance the driver was proceeding at a higher speed than was usual or justifiable, it appears to me that it would be only a wise precaution to order all drivers to stop dead on the level space south of Bowling junction before entering on the incline of 1 in 50.

I have, &c.

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

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

Copies of this report sent to the company on the 16th March.

LANCASHIRE AND YORKSHIRE RAILWAY.

Railway Department,
Board of Trade,
28th February 1871.

Sir,

In compliance with the instructions contained in your minute of the 31st ultimo, I have the honour to report, for the information of the Board of Trade, the result of my inquiry into the collision which occurred on the 26th ult., near Bradford station, on the Lancashire and Yorkshire Railway, between a passenger train belonging to that company and a salt-van in a goods train belonging to the London and North-western Railway Company, which van had left the rails.

One passenger died of injuries received, and another was hurt, but not seriously.

A goods train, belonging to the London and North-

western Railway Company, arrived at Bradford good's yard from Heaton Lodge, at 10.15 a.m., (an hour late,) on the 26th ult., and left it again at 10.45 a.m. for the mineral yard at Broomfield, about a quarter of a mile south of Bradford station. It consisted of engine and tender, a waggon of straw, two loaded salt waggons, and a break-van. The three loaded waggons, which were intended for Broomfield yard, might have been left there when the train passed the yard on its way into Bradford; but the signals having been off for it to proceed into Bradford, the driver preferred running through, and dropping the waggons as he returned.

Just after passing a signal cabin 280 yards south of the platform, and entering a short tunnel where there is a cross-over road (with facing points), between the

up and down lines, the lever for moving which is interlocked with main line signals, the speed being four or five miles an hour, and the gradient ascending one in 50, the driver found his train come to a sudden stand. On getting off his engine, and going back, he found that the salt waggon next the break-van had broken down, was fouling the down line, and had been run into by a down passenger train which had just passed. The waggon was resting with its leading end on the inner rail of the up line, its leading axle, with the wheels on, jammed against the trailing axle, the right trailing wheel being in the six-foot space. The other salt waggon had its trailing wheels off the rails, the right one in the six-foot space; the other vehicles were on the rails. The driver then examined the permanent way, and found what he thought was the mark of a mount on the inside of the right switch of the cross-over road, about 20 yards north of where the salt waggon was lying; his fireman also thinking it the mark of a mount. Other evidence, however, goes to show that this mark was a dent only on the top of the switch, and not at all on its side, and as there were no marks of anything being off the rails till some 15 yards south of it, the mark must, I think, be attributed to another cause than a mount. It is almost certain that the points could not have been moved while the goods train was passing through them, considering that the leading wheels of the first salt waggon and all the wheels of the van behind the second one were on the rails, and that also from the signal having been lowered for the down passenger train the points were thereby locked right for the up line.

Further search brought to light the fact that the left leading axle guard (fixed to the inside of the side frame) was broken in two places, through bolt holes, just where the crown joins the legs. Both fractures showed flaws, and there was a good deal of corrosion from the action of brine. The scantling of the axle guard was $3\frac{3}{8}'' \times \frac{3}{4}''$; the bolt holes $\frac{3}{4}''$ square. The failure of this axle guard, arising probably from the weight brought to bear upon its weak points in the ascent of the incline, enabled the front axle to leave its place; and the mark on the right switch was most likely caused by its being struck by the right axle guard or box

dropping on it. The salt waggon, which belonged to the Cheshire Amalgamated Salt Company, had been removed from Bradford before I made my inquiry on the 13th instant; I followed it to the company's works near Sandbach, where it had gone, but it had been taken to pieces, and I was therefore unable to see what had been its exact state when the accident occurred. The remains of the axle guard (the broken crown of which had been taken possession of by the London and North-western Company) were shown me, but the axle boxes, springs, &c., were not forthcoming. I think, however, there is but little doubt that the accident was caused by the failure in the axle guard; the flaws could not have been detected without the removal of the axle guard, and perhaps not even then. The waggon had undergone general repairs in May 1870, but there was no record as to whether the axle guards had been then removed.

The passenger train had left Huddersfield at 9.38, eight minutes late, consisting of engine and tender, two composite carriages, a van, one second-class, one first-class, and one second-class, the last four, coupled with continuous breaks, and was descending the incline into Bradford station at a speed of four or five miles an hour, when, as the driver was passing the goods train in the Broomfield tunnel, he heard a crash, and stopped as soon as he could. It was found that the corner of the salt waggon had caught the front end of the van, and stripped a portion of its side panelling, had then struck the front end of the carriage next it, knocking in the right corner of the front compartment, and fatally injuring a passenger sitting there with his back to the engine. Nothing left the rails in the passenger train.

The probable cause of the salt waggon leaving the rails has been already alluded to; the frequent failure of the ironwork of these waggons certainly indicates the necessity of a frequent and rigorous inspection of those parts which are peculiarly exposed to corrosive action.

I have, &c.

C. S. HUTCHINSON.

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

Copies of this report sent to the Lancashire and Yorkshire and London and North-western Railway Companies on the 16th March.

LONDON AND NORTH-WESTERN RAILWAY.

*Board of Trade,
(Railway Department),
Whitehall, 26th January 1871.*

SIR,

In compliance with the instructions contained in your minute of the 6th 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 collision that occurred on the 3rd January, about 600 yards to the north of Kilburn station, on the London and North-western Railway.

Six passengers are reported to have been shaken, but none of them are believed to be seriously hurt. The guard of the passenger train was slightly hurt.

On the day in question, a coal train that consisted of an engine and tender, 19 loaded waggons, and a break-van, arrived at the coal yard at the north side of Kilburn station, about 4.40 p.m.

The coal train was stopped on the third line of rails, just outside the Kilburn station home signal, (which is situated about 250 yards to the north of Kilburn station,) close to a cross-over road which leads to some coal sidings at the east side of the main lines.

The engine-driver of the coal train had seven coal waggons to place in these sidings.

About three minutes after the coal train came to a stand, a goods train from Willesden, which consisted of an engine and tender, and 29 waggons (the greater number of them being loaded), and a break-van, with a guard, came to a stand close behind the coal train.

The Kilburn station distant signal for the third line of rails is about 370 yards to the north of Kilburn home signal. The guard's van of the goods train was only about 20 yards inside this distant signal when the goods train was stopped. The Kilburn distant and home signals for the third line of rails were kept at danger; but the goods train had only been pulled up about two minutes when it was run into by the 3.45 p.m. passenger train from St. Albans to London.

The passenger train consisted of an engine and tender, a second, two first, three composite, and two third-class carriages, with break compartments for a guard. The vehicles were coupled together in the order that they are given.

The guard of the train rode in the last compartment of the third-class carriage, at the tail of the train.

This train was sent along the third line of rails from Watford to London, as a fast passenger train from Wolverton to London was overdue.