

The
VIRTUAL MUSEUM
of the
LANCASHIRE & YORKSHIRE RAILWAY

Accident Reports.

6 December 1873

BoT Report into Accident at

Manchester Victoria.

(2 Pages).

proper pause between the first and second two beats; and when making this inquiry I noticed in one of the signal-boxes that the "two beats twice repeated" might easily have been mistaken for four beats, from the defective manner in which they were given.

Again, the mistake of the signalman at Horbury was probably due to the Dewsbury east junction signalman having too quickly repeated the "warning signal," two beats twice repeated, which made the Horbury man suppose that it was intended for the "error" signal of "seven" beats by a miscout on his part, and thus caused him to take off the "electric semaphore switch," which he had put on in the

Dewsbury east junction telegraph signal-box, when he received "train on line" for the goods and coal train at 6.43 a.m.

There are great varieties in the mode of working the absolute block system, but now that greater progress is apparently taking place in its introduction, it is very essential that a good uniform system for all railways should be adopted.

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

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

Printed copies of the above report were sent to the Company on the 31st December.

LANCASHIRE AND YORKSHIRE RAILWAY.

Sir,
Manchester, 27th January 1874.
IN compliance with the instructions contained in your minute of the 12th ultimo, 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 6th ultimo, at the east end of the Victoria station, Manchester, on the Lancashire and Yorkshire Railway.

On the day in question, a passenger train, which consisted of an engine and tender, a break-van with a guard, a second-class, first-class, and two third-class carriages, arrived at Victoria station from Yorkshire about 11.38 p.m. As soon as the passengers and luggage had been taken out of the train it was backed out of the station, and, while doing so, it was run into by a passenger train from Rochdale that was entering the station.

Five passengers in the Rochdale train, as well as the guard of the train, are reported to have been slightly shaken.

Victoria station, Manchester, is approached from the east on a falling incline of 1 in 59, which extends to the east end of the station. The line into the station is on a falling gradient of 1 in 150. There is a signal cabin at the east end of the station, from which the arrival and departure of all trains is controlled. It is distinguished as No. 1 junction cabin. The lever-handles, by which the points and signals are worked from this cabin, are interlocked, and the railway from No. 1 cabin eastwards is worked on the absolute block system. There are separate arrival and departure signals for the several lines.

As soon as the passengers had disembarked from the Yorkshire train at No. 4 platform, Victoria station, the semaphore signal, for this train to shunt back, was lowered by the signalman at No. 1 junction cabin. This was about 11.40 a.m. Immediately afterwards the signalman received notice on the telegraph instrument that the train from Rochdale was approaching. This train consisted of an engine and tender, a break-van with a guard, a second, two first, and three third-class carriages. When the signalman in No. 1 cabin got notice of the approach of this train he looked out to see whether the Yorkshire train was ready to leave No. 4 dock line, but thinking that it was not ready, he put up the semaphore signal against the Yorkshire train, to prevent it from moving from the place where it was standing, and after waiting for a couple of minutes, to see that it had not moved, he lowered his semaphore signal for the Rochdale train to go to No. 2 platform at Victoria station. The line to No. 2 crosses the line to No. 4 at the east end of the platform. The train from Rochdale had been stopped outside No. 1 junction cabin, as it is customary to detach the engine from the train before it enters the station, and to allow the train to run into the dock line under the control of the guard who travels in the break-van next to the

engine. The guard of the train from Rochdale allowed the train to descend the incline into the station as soon as the signal for it to proceed was taken off, and the train was moving forward at a speed of about four or five miles an hour when it ran into the last vehicle of the train from Yorkshire, which had commenced to move back out of the station, about the same moment as the Rochdale train had started to move into the station. One carriage of the Rochdale train was thrown off the rails, and four or five carriages were damaged, and all the carriages of the Yorkshire train were slightly damaged, but no part of this train left the rails.

The shunter who was on duty at Victoria station, when he saw that the signal was at "all right" for the Yorkshire train to move back, had given the engine-driver of the train the signal to put back, and the shunter then jumped into the break-van, to act as guard during the shunting operation. On examining the signals after the accident it was found that the signal for the Yorkshire train to shunt back was standing at "all right," at the same time that the signal for the Rochdale train to enter the station and cross the line of rails on which the Yorkshire train was moving was also at "all right;" but on going into No. 1 cabin, the levers by which these signals are worked, were found to be so placed, that the signal for the Yorkshire train should have been at "danger" if it had acted properly, and on further examination of the wire by which No. 4 platform signal is worked, it was ascertained that the wire had stuck somewhere. This signal, together with all the apparatus in No. 1 cabin, had been put up in March 1873, and had never been known to fail before. It failed again about a week after the present accident, but fortunately the second failure was detected, and did not cause an accident.

The wire by which No. 4 signal is worked passes under the platform as well as under the lines of rails leading to 2, 3, and 4 docks. There are trapdoors by which the cranks and pulleys can be cleaned and examined, and I would recommend that the wires should be conveyed through pipes, for six or eight feet from the places where they enter the troughs, through which they pass under the railway, so as to prevent them from getting jammed by stones or rubbish that may be kicked about the line.

The Lancashire and Yorkshire Railway Company have put an additional weight on the lever by which No. 4 signal is actuated, so as to prevent, as far as possible, any recurrence of this signal not being raised to "danger" when the wire by which it is pulled to "all right" is slackened for the signal to return to the position denoting "danger."

The accident which forms the subject of this report seems to have been caused by the wire or one of the cranks by which No. 4 signal is actuated, not having worked properly, owing to the counterpoise

weight on the lever of the semaphore, by which the arm is raised to "danger" and the weight of the wire by which the signal is pulled to "all right" having been too nearly balanced, or by some dirt or other impediment interfering with the free movement of the wire and cranks.

The servants of the company who were in charge of the station and of the trains appear to have done

their duty. They do not seem to be in any way responsible for this accident.

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

I have, &c.,
F. H. RICH,
Colonel, R.E.

Printed copies of the above report were sent to the Company on the 14th February.

LANCASHIRE AND YORKSHIRE RAILWAY.

Sir,

Bolton, 10th January 1874.

In compliance with the instructions contained in your minute of the 19th December, I have the honour to report, for the information of the Board of Trade, the result of my enquiry into the circumstances connected with the collision that occurred on the 13th December, near the Gilnow level-crossing, between the Bolton station and the Lostock junction, on the Lancashire and Yorkshire Railway.

In this instance, the 5.25 p.m. down passenger train from Manchester for Fleetwood came into collision, whilst running, 701 yards on the west of the Gilnow level-crossing, and a mile and a quarter on the west of the Bolton station, with a preceding empty-wagon train, 2.20 p.m. from Oldham Road for Liverpool; and a portion of the wreck of the latter train having been thrown foul of the up line, it was immediately afterwards run into by the 4.45 p.m. up passenger train from Southport for Manchester. In this double collision, 42 passengers and six servants of the Company were injured or shaken.

Description.

On the west of the Bolton station there is a tunnel, 528 yards long, known as the Bullfield tunnel; and on the west of this tunnel are two cabins, within 194 yards of one another, called the Bullfield upper and lower cabins, the lower cabin being 80 yards from the west entrance of the tunnel. On both sides of the main lines in the neighbourhood of these cabins there are extensive sidings; the sidings on the north of the main lines being used principally for exchange coal-traffic with the Blackburn line; and those on the south of the main lines being used, partly for the purposes of the Corporation of Bolton, and partly as a mineral-yard for the accommodation of the Bolton station-traffic. The Bullfield tunnel, between Bolton and these sidings, is worked by telegraph on the block-system, but that system is not extended further to the westward. The two cabins in question appear to have been constructed upwards of 20 years ago; and they are not supplied with modern means and appliances. Certain of the points in the neighbourhood and certain signals are worked from them, but the levers are not interlocked with one another. The signalmen in these cabins are each provided with a distant-signal working to the other cabin, and with a means of communication by mechanical-gong; but there is no home-signal at either cabin, and there are no trap or safety-points to protect the main line from the north sidings. There are telegraph speaking-instruments in the lower cabin, from Bolton on one side and from Lostock junction on the other side, and the signalman in that cabin is thus provided with the means of knowing when to expect a train and what class of train is approaching him. The traffic on this portion of the Lancashire and Yorkshire Railway is very heavy, and may be said to be almost incessant; but no means has yet been provided for the shunting and marshalling of the goods trains independently of the passenger lines, and much obstruction and risk to the traffic are caused for the want of this extra accommodation. There is a rising gradient of 1 in 460 from the Bullfield sidings to the point of collision.

Evidence.

The engine-driver of the 5.25 passenger train from Manchester for Fleetwood, James Clarkson, states that he left Manchester at 5.29 p.m., four minutes late, and that he was detained for six minutes, in consequence of the signals having been against him, at the Bury junction. He therefore reached Bolton at 5.55 p.m., 10 minutes late. He left Bolton again at 5.58, eight minutes late, with an engine and tender and seven carriages. He found the signals all right for him through the tunnel and past the signal-cabin at the west of it. In passing the Upper Bullfield cabin he saw a green light exhibited by the signalman from his hand-lamp. He was then travelling at a speed of 27 or 28 miles an hour. He partially closed his regulator, and thus reduced his speed to about 25 miles an hour in approaching the Gilnow level-crossing, 603 yards further to the westward. The gate-keeper at the Gilnow crossing also showed him a green light from his hand-lamp. He then shut his steam off completely, but he did not consider it necessary to whistle for the breaks, or to tell his fireman to apply the tender-break. The atmosphere had been tolerably clear from Bolton through the tunnel, and past the Bullfield cabins, but became much thicker after he passed the Gilnow crossing; and he was unable to see the goods train with which he then came into collision, 701 yards beyond the crossing, more than 30 yards before he struck the break-van at the tail of it. On seeing the goods train, he reversed his engine, and had just time to open his regulator, after whistling for the breaks; and the fireman partially applied the tender-break. The buffer-plank of his engine was broken, and the leading wheels left the rails. He does not think that his engine moved forward 20 yards after the collision. On finding that two or three of the wagons in the middle of the goods train were thrown across from the down to the up line of rails, as a result of the collision, the fireman took the gauge-lamp from the engine, and ran along the up line about 20 or 30 yards, to warn the engine-driver of any train that might be approaching from that direction. Seeing the Southport train suddenly coming up, the fireman was a little confused, and first turned his lamp to white before he turned it to red; and he thus did not show a danger-signal so rapidly towards the Southport train as he might otherwise have done. The engine-driver of the Fleetwood train believes that his speed was 12 or 13 miles an hour when the collision occurred. This man has been nearly 30 years in the Company's service as an engine-driver, and he holds a silver medal received for good conduct after 20 years' service.

William Wilkinson, the guard of the 5.25 p.m. Fleetwood express train, states that he started from Bolton at 5.58 p.m., with an engine and tender and seven passenger carriages, of which the fifth was a break-carriage, and all of which were coupled together with Fay's continuous break. He was looking through the window of his van towards the front, and saw that the signals were all clear up to and past the Gilnow level-crossing, and he saw no green light exhibited by any signalman. The first indication of any danger which he received was from the whistle of the engine.