The

VIRTUAL MUSEUM

of the

LANCASHIRE & YORKSHIRE RAILWAY

Accident Reports.

9 August 1873

BoT Report into Accident at

Miles Platting.

(4 Pages).

have arrived at 1.29; and to have passed the junction cabin at 1.41, whereas it must have passed it at about 1.37. This difference was important under the circumstances, as, had the clock in the junction cabin not been (as appears to have been the case) too fast, it will be seen that, according to the appended memorandum, the London and North-Western train would have preceded the Lancashire and Yorkshire train from Staleybridge; and in this case the collision would have not taken place, as the shunting would have been postponed at Clayton Bridge station, until both passenger trains had passed.

The Clayton Bridge up distant-signal is not a good one; it has a bad background, and should be (considering the descending gradient on which it is approached) at least double its present distance from the station.

I have, &c.,
C. S. HUTCHINSON.

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

Office of Superintendent of the Line,
Victoria Station,
Manchester, 18th May 1872.

To the Signalmen, Staleybridge Junction, Lancashire and Yorkshire Railway.

Electric bell communication between Tunnel box and Lancashire and Yorkshire Junction.

With a view of preventing delays to the London and North-Western passenger trains between Staleybridge and Manchester, it has been arranged that the London and North-Western signalman at the Staleybridge Tunnel box shall announce to the signalman at the Lancashire and Yorkshire junction box the approach of a London and North-Western passenger train by giving *two beats* upon the electric bell, which the Lancashire and Yorkshire signalman will at once acknowledge by *one beat;* he will then give the London and North-Western passenger train the right of road by keeping back any Lancashire and Yorkshire passenger or goods train which may be ready to leave, until the London and North-Western passenger train has passed.

For HY. BLACKMORE,
JNO. MADDOCK.

Printed copies of the above report were sent to the Lancashire and Yorkshire and London and North-western Railway Companies on the 29th August.

LANCASHIRE AND YORKSHIRE RAILWAY.

SIR, *Manchester, 16th August* 1873.

IN compliance with the instructions contained in your minute of the 13th instant, I have the honour to report, for the information of the Board of Trade, the result of my enquiry into the circumstances attending the accident that occurred on the 9th instant, near the Miles Platting station on the Lancashire and Yorkshire Railway.

In this case, the passenger train, 11 a.m., from Bury for Manchester, was passing the Brewery-siding signal-cabin, near Miles Platting, when two vehicles at the end of the train left the rails. Of these two vehicles the leading one was a passenger carriage, and the trailing one was a carriage-truck; and they both fell over on their sides. A passenger after jumping from the carriage was crushed by the truck as it fell over, and he died shortly afterwards from the injuries he received. Seven other passengers complained of injury.

The Brewery-siding cabin is about a quarter of a mile on the east of the Miles Platting station. At a distance of 26 yards from it there are a pair of facing-points on the up line, marked A in the accompanying diagram, leading from the up main line to two loop lines, which are on the south of the main lines, and which are used for enabling goods trains to leave the passenger line, and be shunted out of the way of the passenger trains, as occasion may require. There are also sidings on the north of the main line, but it is not necessary now to refer to them further. At a distance of two feet seven inches on the east of the facing-points A, above referred to, there are a pair of leading-points, B, which form the up-line points of a cross-over road, of which the down-line points C, are about 60 yards further to the east of the cabin. On the east of the signal-cabin, and 86 yards from it, there is a signal-post carrying two semaphore-arms, the upper arm applying to the main line, and the lower arm applying to the loop line, from the facing-points; and about 800 yards to the eastward there is a distant-signal applying to both of these lines. The home-signals are interlocked with the facing-points, and with the cross-over-road points; but the distant-signal is not so interlocked. The permanent way and the signal arrangements, including the cabin, are one year and ten months old. Alterations were made at the end of 1871, with a view to extending the siding accommodation, and disencumbering the passenger lines of goods and mineral traffic.

The permanent way is laid with steel rails, weighing 80 lbs. to the lineal yard, fished at the joints with suspended wrought-iron plates, and four screw-bolts and nuts to each joint. The chairs are of cast-iron, weighing 47 pounds each, and are secured to the sleepers each by two treenails and one iron spike. The sleepers are of Baltic timber, creosoted, measuring nine feet long, by ten inches by five inches in section; and the ballast is of broken stone below, and refuse cinders above. The facing-points, A in the diagram, are worked by rods at a distance of 26 yards along the line, and ten yards across it, from the signal-cabin, which is fitted with Yardley's patent locking-apparatus. The tongues of the points are 14 feet long, and the rails at the ends of them are bent to a maximum of $\frac{3}{4}$ of an inch to receive them. The aperture between the off tongue and the off rail, when the points are open for trains running along on the main line, is about $3\frac{1}{2}$ inches; and in testing the working of the points, I found that the lever in the signal-cabin could be pushed into the notch, when the near tongue was blocked open to the extent of $\frac{3}{8}$ of an inch, by a piece of iron introduced for the purpose between the near tongue and the near standard-rail; but the point could not have been so far blocked open without the knowledge of the signalman, inasmuch as in such a case he could not push over his lever without a special effort; and, further, in passing an engine and carriage through the points, when the near point was so blocked open, the wheels passed properly through the points, and the only effect produced was that the near tongue was squeezed towards the standard-rail by the flanges on the near wheels of the engine and carriages as the wheels passed over it.

The train in question left Bury at 11 a.m. punctually on the morning in question, consisting of a tender-engine, running tank first, a break-van, one second-class carriage, and one first and two second-class carriages. It ran forward in due course, stopping at Broadfield and at Heywood,

where a carriage-truck was attached to it. It left Heywood at 11.14, four minutes late, and after stopping at Middleton junction and Newton Heath, it approached the Brewery cabin at a speed of 10 to 12 miles an hour. The engine-driver found the distant-signal and the home-signal at all right. When passing the cabin, the engine-driver felt something grating behind, as if the guard had suddenly applied his continuous breaks, and in looking round at the signals and the train he saw a man standing on the loop line making a signal to stop. Observing next that the carriage and carriage-truck at the tail of his train were off the rails, he reversed his engine and applied his steam, and he brought his train to a stand within 20 or 30 yards. Neither the engine-driver nor the fireman noticed which vehicle was the first to leave the rails, nor did they observe when the home-signal at the Brewery cabin was first turned to danger. The guard who rode in the break-van felt a jerk as he was passing the Brewery cabin, and applied his break. He found the train coming to a stand in 20 or 30 yards, and, on looking round, he saw the carriage and carriage-truck last in the train on their sides, after the train had stopped. The engine-driver and fireman, on looking back as the train was pulling up, also saw a passenger who was standing on the foot-board, on the near side of the third-class carriage, drop off that carriage on to the ballast, and saw the carriage-truck fall over on him. They noticed also that the carriage-truck fell over on its side before the third-class carriage. The engine-driver and fireman went back at once, when the train had stopped, to assist the passenger on whom the carriage-truck had fallen; and the guard ran to the third-class carriage, and got on the top of it, and helped the passengers who were in it to get out on the side which was uppermost. The engine-driver next went back to the facing-points, and examined the condition of the permanent way. He found the points apparently uninjured, and closed, so as to be right for the main line; and he noticed certain tracks in the ballast commencing at a check-rail on the loop line 37 yards from the facing-points. Neither the guard, nor the driver, nor the fireman noticed any other indications to show the cause of the accident, and they were unable to ascertain how it had occurred.

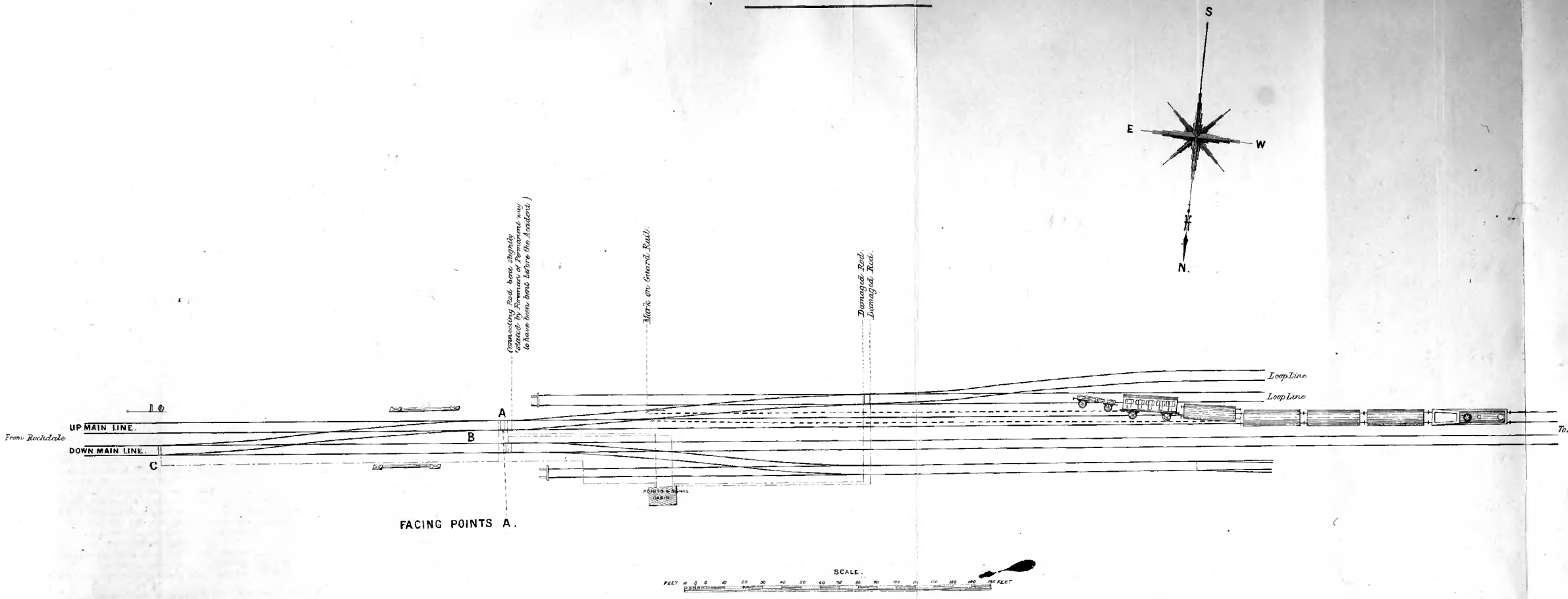
The signalman who was on duty in the Brewery cabin has been employed there since the 23rd of June last. He was previously for four months signalman at the Mirfield station, was employed for three months in cleaning points, and was also for 11 months a porter in the Company's service. He states that on the morning in question he first received notice of the approach of the Bury train by the ringing of the bell connected with his block instruments, and after giving "train on line," he rung forward "be ready" to Miles Platting. He then pulled off his distant-signal and his home-signal to allow the train to pass his cabin. He saw it coming towards him, and he heard, as it passed, a great shaking in his cabin, while, as he states, he was in the act of booking the time of the train passing. He had entered 11.34 in his record-book as the time at which the train passed him, when he noticed a carriage off the rails. He had already turned his distant-signal to danger, and he then put his home-signal up. He watched the train proceed forward along the line, and the carriage behind it on its side; and he did so, he states, after he had booked the time of passing, and after he had turned his home-signal to danger. He adds that the lever No. 3 which works the facing-points from his cabin was pushed back as far as it would go, and he asserts positively that he did not alter that lever until he was told to do so by some one whom he does not remember, to allow the pilot-engine (which had been standing on the down main line) to run through to the loop line. He thinks it might be five minutes after the accident that he so altered the point-lever. The signalman also states that he had previously pulled No. 15 lever into forward gear to, allow the pilot-engine to leave a siding on the north of the main line, and to run on to the down main line, with a view to its crossing over from the down to the up main line by means of the cross-over road, B, C, in the diagram, on the east of the cabin, so that it might go into one of the loop sidings of the up main line. He says he had not time to put No. 15 lever back again into its normal position, and No. 15 lever being interlocked with No. 7 lever, which worked the cross-over road, it would have been necessary for him to put No. 15 lever back before bringing over No. 7 lever; and he asserts that according to the usual practice he would not have pulled over No. 3 lever which worked the facing-points until after he had put back No. 15 lever and pulled over No. 7 lever. He asserts positively that the facing-points were set properly for the main line, and that they were not altered until after the accident. The facing-points were in good working order before the accident, and had been so since; and he is not aware of any alteration having been made, except the straightening of the leading connecting-rod, but he could not say whether this connecting-rod had been bent before the accident or in the course of the accident.

There was with this signalman in the cabin a man who has been employed as relieving signalman in several other cabins in the neighbourhood of Miles Platting; and this relieving man had been working the points during the day under his instructions. It was only the second day that the relieving man had been in the cabin, and the signalman allowed him to work the levers as he felt inclined, taking great care to see that he did so properly. The signalman did not on any occasion on these two days *order* him to work any points or signals, but only allowed him to work the levers for goods trains when he asked permission to do so, and did not allow him to touch the levers for the passenger trains.

The relieving man who was in the cabin has been employed as relieving man at various cabins in the neighbourhood for about eight months. He states that he was sitting down in the cabin and about to eat his dinner, and that he had just commenced to do so, when he heard a shaking of the locking-frame,—that he got up and looked out, but that he did not see the train approaching until after the vehicles at the tail of it had left the rails. He then got up and looked out of the window, and saw the train run 20 or 30 yards, and first the carriage truck, and after it the carriage, fall over on their sides; but he did not notice the condition of the signal or point levers either before the accident or after it. He saw the signalman booking the train when he got up from his dinner, and the signalman shouted to him "There is a carriage off the line." He saw him entering in the record-book the arrival of the train; the signalman told him that he had put the home-signal up after the accident had occurred; and neither he nor the signalman left the cabin until he went home at 4 p.m. or 5. The evidence of this witness was by no means satisfactory. He stated, amongst other things, that as he was getting up from his dinner—after commencing with a few mouthfuls of potatoe—he saw the signalman leaving the book in which he was entering the passing of his train with a pencil in his hand, and that the signalman then *told him* that he had turned the signal to danger, but that he did not see him turn the signal to danger, which he must have done if the signalman had moved the lever at that time. The relieving man further stated positively, that he did not himself pull the points over or lower the signal, but that he saw the signalman do so; and that he, the relieving man, worked the block instruments both towards Newton Heath and Miles Platting, and also worked the needle instrument towards Miles Platting, to indicate what description of train was going forward; and that it was after so working the instruments, he said, "I will sit down and have a bit of dinner now." The relieving man was, again, unable to say whether the signalman turned the signal to danger before

LANCASHIRE AND YORKSHIRE RAILWAY.

ACCIDENT AT MILES PLATTING AUGUST 9TH



the train passed through the points or not, because, he says, he was taking his dinner at the time.

The signalman produced his book, in which he entered in pencil "Bury, 11.34," and stated that he made this entry before the accident and while the train was passing his cabin. The signalman and the relieving man had been in the cabin from 8 o'clock until 11.34 a.m., when the accident occurred. According to the signalman, during those three hours and a half, the relieving man asked him from time to time what levers he should pull over for the different trains, and when instructed by the signalman he pulled the different levers over. That system of working went on for several of the goods trains up to the time of the accident; but the signalman states that he himself worked the signals for the passenger trains,—there being no points to work for those trains. The signalman states, also positively,—in contradiction, it will be observed, to the evidence of the relieving man on their being separately cross-examined—that he did everything that related to the particular train to which the accident occurred; that he worked the telegraph block-instrument and the needle-instrument, as well as the signal-lever, for that train; that the relieving man was getting his dinner at the time, and had begun his dinner about five minutes before the telegraph-signals were made for the train; and that the relieving man must have seen him throw his signal to danger after the accident, because he called out to him before doing so, "Joe, there is a carriage off the line." The signalman adds that the relieving man got up while he was throwing the signal on, but that he did not tell him that he had turned the signal on, and that he did not afterwards say anything to the relieving man, or have any conversation with him on the subject of turning the signal to danger after the accident; as well as that his levers had always worked properly since he had been in the cabin.

I have thought it right thus to quote, in the desultory manner in which it was given, the principal points resulting from the cross-examination of the above witnesses. The disagreement which will be observed on material subjects is an indication that their statements are not reliable. But there were other witnesses to the accident. There was an engine-driver standing on a pilot-engine, about 70 yards on the east of the facing-points, on the down line; and there was a shunter about 70 yards from the facing points on the west, waiting to attach wagons in the siding to the pilot-engine; while the pilot-engine was waiting until after the passenger train from Bury had passed to cross over from the down main line to the up main line, and pass through the facing-points into the loop sidings. These men saw the passenger train run past as they thought at a speed of about 12 miles an hour. The engine-driver believed that the carriage was the first to leave the rails, but the shunter was not able to say which vehicle first left the rails, though they both noticed that the carriage-truck was the first to tumble over on its side. The engine-driver had told the signalman, in passing to the down line, previously to the arrival of the Bury train, that he wanted to go into the loop sidings; and the signalman made a motion with his hand which was meant to say "stop till the train has passed." The engine-driver also saw the signalman lower his home-signal for the Bury train, but he did not observe when the signal was again turned to danger. The shunter did not see it lowered or turned to danger. The engine-driver noticed a mark on the check-rail, and a track on the ballast, as of a vehicle having left the loop-line at that point, and the shunter noticed the same thing. A foreman in the locomotive department and an assistant foreman in the permanent way department speak to the same mark on the check-rail and track in the ballast.

In examining the third-class carriage and the carriage truck, I found that the axles of the former were both slightly bent, no doubt as the result of the accident, and that the near trailing axle-guard of the latter had also been bent. The play in the axle-brasses of the carriage was very slight,—only about $\frac{1}{16}$th of an inch,—as they were nearly new. One pair of wheels had been knocked from under it in the course of the accident. The play in the axle-brasses of the carriage-truck was excessive, amounting to from $\frac{5}{8}$ths to $\frac{7}{8}$ths of an inch. The wheels of both vehicles were in good working order.

Judging from the marks above described and shown on the diagram, from the evidence as to how this accident occurred, from the conflicting statements of the signalman and the relieving man in the cabin, and from all the circumstances of the case, it would appear that the signalman must have turned his home-signal to danger, and pulled over his facing-points, before the whole of the Bury train had passed through them. By doing so, he no doubt caused certain of the wheels at the tail of the train to run along the loop line, whilst the remaining wheels of the train ran along the main line; the carriage-truck, the third-class carriage next in front of it, and the trailing wheels of the third-class carriage in front of that one, were thus thrown off the rails of the main line; and the carriage-truck and one third-class carriage fell on their sides in the position shown in the diagram. It will have been observed that a pilot-engine was waiting to pass through the facing-points along the loop-line as soon as the Bury train had gone by; and that the next operation of the signalman, after the passage of the Bury train, would have been to pull over either the points of the loop-line or those of the cross-over road between the down and the up main lines.

A locking-bar in front of the facing-points, would in this instance have been very valuable as a means of preventing such a mistake on the part of the signalman. When the points had once been set for the train, and the train had entered upon them, the wheels, resting upon the locking-bar, would then have prevented the signalman from moving it or from altering the points until the whole of the train had passed them.

I have, &c.,
H. W. Tyler.

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

Printed copies of the above report were sent to the Company on the 12th September.

LANCASHIRE AND YORKSHIRE RAILWAY.

Sir, *Furness Abbey, 28th January* 1874.

In compliance with the instructions contained in your minute of the 16th August 1873, 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 13th of that month at Burnley station, of the Lancashire and Yorkshire Railway.

Three passengers are reported to have been slightly shaken.

Burnley station is approached from the north on a falling gradient of 1 in 150. The passenger station is situated at the east side of the railway. It is a one sided station, and is placed on a loop line, which joins the main up and down lines at the north as well as at the south end of the station. The junction-signals