

The
VIRTUAL MUSEUM
of the
LANCASHIRE & YORKSHIRE RAILWAY

Accident Reports.

16 April 1900

BoT Report into Accident at
Manchester Victoria.

(7 Pages).

Coaches of 1.15 p.m. ex Paddington.

Composite No. 745 (8-wheeled).—End compartment completely smashed; 1 head-stock, 1 step-board, 3 roof-lights, 1 buffer-guide, 1 door-panel broken; 2 buffer-rods bent.

Composite No. 855 (8-wheeled).—1 compartment at each end completely smashed; continuous vacuum-pipe, 2 buffer-guides, 4 buffer-rods, 10 roof-lights, 1 head-stock, 2 quarter-lights, 1 door-light, 3 stepboards, 1 bow-girder screw-joint, and 4 step-irons broken; 2 sole-bars, 3 suspension-bars, 2 suspension-scrolls, 2 suspension-bar bolts, and 2 suspension-bolt safety-buckets bent.

Third-class No. 3,047 (8-wheeled).—Quarter-lights and buffer-bolts broken.

Third-class No. 1,926 (8-wheeled).—2 buffer-guides, 1 draw-bar hook, 1 side-chain broken; 2 buffers bent.

Brake Composite, No. 983 (8-wheeled).—1 head-stock, draw-bar plate, 1 door-light, 1 quarter-light, and 1 buffer-guide broken.

Brake Third, No. 2,904 (8-wheeled).—1 buffer-guide and 1 buffer-rod broken.

Third-class No. 1,699 (6-wheeled).—1 buffer-guide broken.

Brake Third, No. 2,054 (8-wheeled).—2 end-panels, electric bell-stop, gangway canvas, corner beading, and buffer-rod broken; buffer-rod pulled out; and 1 quarter-light cracked.

Composite No. 947 (8-wheeled).—2 buffer-guides, 1 electric stop, corner beading, 3 end-panels, gangway frame, stepboard, quarter-light, and axle-box bottom broken; 3 buffer-rods bent and 1 pulled out.

Composite No. 1,410 (8-wheeled).—Gangway, 1 buffer-guide, 1 end-panel, and electric bell-stop broken; 1 head-stock, 3 buffer-rods, 1 gangway, and gas-pipe bent.

Brake Third, No. 2,053 (8-wheeled).—8 end-panels, corner of roof, gangway, 2 buffer-guides, 1 door-handle, 1 side-panel, 1 door-glass and frame, and 1 door-panel broken; handrails, head-stock, bow-girder, commode handle, and buffer-rods bent; 3 side-lights cracked.

DAMAGE TO PLATFORM AND PERMANENT WAY.

The front portion of verandah roof over platform was destroyed for a length of 93 ft. The platform nosing knocked off for 22 ft. The smoke-troughs under footbridge destroyed; 4

panes of glass and 1 sash in footbridge broken. Panels of doors of station master's and inspector's offices broken. 65 common rail-chairs broken and 36 sleepers destroyed.

Printed copies of the above Report were sent to the Company on the 9th November.

LANCASHIRE AND YORKSHIRE RAILWAY.

Railway Department, Board of Trade,
8, Richmond Terrace, Whitehall, London, S.W.,
7th May, 1900.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with the Order of the 24th April, 1900, the result of my inquiry into the circumstances under which a collision occurred about 10.30 p.m. on the 16th April at Victoria Station, Manchester, on the Lancashire and Yorkshire Railway.

In this case, as the 10.15 p.m. Manchester to Southport train, consisting of an engine, tender and eight vehicles was standing at No. 6 platform, Victoria Station, waiting for the arrival of a train from Yorkshire, it was run into in rear by the No. 222 special 10.25 p.m. train of empty coaches from Manchester to Bradford, which had been permitted to enter the station. This latter train consisted of an engine and eleven vehicles.

The rear vehicle of the 10.15 p.m. train, a third-class brake, was very badly damaged by the collision and was derailed, and the two next vehicles to it were also damaged. The front vehicle, which was also a third-class brake, was likewise severely damaged and was derailed, and the two vehicles next to it were more or less damaged. The engine also of this train suffered slight damages.

In the No. 222 special train the engine and the three leading vehicles were all damaged and were all derailed.

None of the passengers or railway staff were seriously injured by the collision, but the Company has received 38 complaints from passengers of slight personal injuries sustained.

The engine of No. 222 special train was a four-wheels-coupled tank engine,

fitted with automatic brake working blocks on the four coupled wheels. The train consisted of the following vehicles attached to the engine in the order given :—

- One third-class van.
- One composite carriage.
- Eight third-class carriages.
- One third-class van.

The train was fitted throughout with the automatic vacuum brake, which is reported as having been in good working order.

The details of damage to rolling-stock are given in the Appendix. The damage to permanent way was practically nil.

Description.

No. 6 platform, at which this collision occurred, is the south side of the island platform at Victoria Station, Manchester. The admission of trains to this platform is controlled jointly by the signalman in the platform box, situated near the centre of the platform, and by the signalman in the east box, situated about 230 yards to the eastward of it.

There is a home platform box signal just to the westward of the platform box, and a starting signal at the west end of the platform. The home signal for the east box is situated on a gantry 160 yards to the east of that box. The distant signal for the platform box is as usual under the east box home signal. The distance between the platform box home signal and the east box home signal is 392 yards, and the collision occurred between these two signals at a distance of 59 yards from the platform box home signal. Under the east box home signal is a calling-on arm, and the following are the instructions in force as regards the use of these different signals for trains entering the station :—

“If the distant signal for the platform box is off, the line is clear up to the starting signal at the end of the platform.”

“If the distant signal for the platform box is on and the home signal at the east junction is off, the line is clear up to the platform box home signal only.”

“If the calling-on arm at east junction is lowered, the line is obstructed at some point outside the platform box home signal, and drivers must be prepared to stop short of the obstruction.”

For a train approaching Victoria Station from the east box home signal the gradient is a falling one varying from 1 in 65 to 1 in 57 for the first 270 yards, at which point the line passes under the Cheetham Hill overbridge; from that point up to the platform home signal the gradient is a rising one of 1 in 248.

The bridge referred to above has heavy masonry abutments, and in the case of trains entering No. 6 platform there are reverse curves, so that the view ahead is very limited, and until a driver gets underneath this bridge he has practically no chance of seeing the position of an obstruction on the line in front of him. In this case the tail of the stationary train was standing 59 yards beyond the centre of this bridge.

Evidence.

Charles Peasley, passenger guard, states : I have been 37 years in the service of the Company, during 26 of which I have been a passenger guard. I came on duty on April 16th at 2.20 p.m., to work until 11.40 p.m. I had gone off duty on the 15th some time in the afternoon. I was guard of the 10.15 p.m. train from Manchester to Southport, which consisted of equal to 11 vehicles arranged in the following order :—

- Engine.
- Bogie Third Van.
- „ Compo.
- „ Third.
- Ordinary Compo.
- Bogie Third.
- „
- Ordinary Third.
- Bogie Third Van.

The train was fitted with the automatic vacuum brake, which was in good order. My train was

standing at No. 6 platform, and we were waiting for the Yorkshire connection in order to start. The rear of my train was about 60 yards in rear of the platform home signal, and I myself was standing on the platform about 4 yards behind my van. When we had been about ten minutes in the station, I heard the sound of a train approaching. I turned round, and the first I saw of the train was when it was passing me, I estimate it was travelling at a speed of ten miles per hour. I cannot say whether the train was slackening speed at the time. When it collided with the rear of my train, the first coach next to the engine was thrown off the rails, the rear end of the rear brake van was broken in, and the front end lifted. I do not know what other damage was done to my train. I did not personally receive any complaints from passengers of injuries received. My tail lamp was burning well at the time. I cannot say whether the automatic brake

was on at the moment the collision occurred ; my hand brake was not on. The shock of the collision was a very severe one.

William Brookes, driver, states : I have been 22 years in the service of the Company, during five of which I have been a driver. I came on duty at 5.45 p.m. on April 16th, to work until 12.30 a.m. I had come off duty previously at 5.50 p.m. on the 15th. I was working the 10.15 p.m. train from Manchester to Southport on the 16th April. My engine was a four-wheels-coupled bogie tender engine, fitted with the automatic vacuum brake, working on the four coupled wheels and the six tender wheels. I remember my train being run into whilst standing at Victoria station. The shock of the collision as felt on the engine was fairly severe. The framework of the bogie tender was slightly damaged, and the tender vacuum pipe was also injured. At the time of the collision the vacuum brake was off. I was ready to start so I had taken the automatic vacuum brake off, but the hand brake of the tender was on. My engine was pushed forward about two feet by the collision.

Alexander Woods, signalman, platform box, states : I have been in the service of the Company about four years, during one of which I have been a signalman. On the 16th instant I signed on duty at 2.30 p.m. to work until 11.30 p.m. I remember the 10.15 p.m. train to Southport standing on No. 10 road on the evening of the 16th. While it was standing there east junction box offered me an empty coach train, viz., No. 222 special. I accepted it by one beat on the bell, which means that the line is not clear up to the platform home signal. At this time the tail of the 10.15 p.m. train was some way behind the platform home signal ; how far I cannot exactly say. My rules are, that I am not allowed to accept "line clear" signal unless the line is clear up to 30 yards beyond the platform home signal. If the line is blocked behind this point, I have to accept the train with caution, which I did in this case. After accepting the train with caution I heard the crash of the collision, and knew that something was wrong.

John Wimpenny, signalman, states : I have been in the service of the Company 24 years, during 22 of which I have been a signalman, and I have been four years in the East Junction signal box. On the 16th instant I booked on duty at 10 p.m. to work until 6 a.m. on the 17th, having booked off duty at 6 a.m. on the 16th. I remember passing the coaches of the 10.15 p.m. Southport train into No. 10 road at 10.17 p.m., and at the same time I had the empty coaches of No. 222 special offered to me. I accepted these coaches at 10.21 p.m., and they arrived at my home signal at 10.24 p.m., where they came to a stand. I offered this train to the platform box, but I cannot say the exact time I did so. The platform box accepted them with one beat, which means caution. I lowered the "calling on arm," and the train went past my box. I think the train had been standing at my home signal about one minute. I was attending to the telephone at the time the engine passed my box, but I saw the rear portion of the train pass my box, and I thought it was running in too quickly. I estimate it was going at about 10 miles per hour. I heard the inspector who was standing on the ground cautioning him about the speed at which he was going. Before the engine of No. 222 train passed my box, I could see the tail lamp of the 10.15 p.m. Southport train standing at the platform. The

next thing I knew about anything being wrong was hearing the crash of the collision. It is a frequent occurrence for trains to be accepted at a caution, and I am quite sure that on this occasion the train ran in at a higher speed than is customary under those circumstances. I myself felt confident that there would be a collision unless the 10.15 p.m. train moved off, but it was too late for me to take any steps to check the speed.

J. Bownes, main line inspector, states : I have been 30 years in the service of the Company, during 17 of which I have been a main line inspector, and during 12 of which I have been on duty at Victoria Station. I came on duty on the 16th instant at 3 p.m. to work until 12 midnight. I remember about 10.25 p.m. noticing No. 222 special coming into the station. At that time I was standing on the boards outside East signal cabin. At the time there was another train in No. 10 road, and I considered No. 222 special was going in too fast. I shouted out and gave the driver a green signal with my hand lamp. I estimate the speed at the time at between 13 and 15 miles per hour. I cannot say whether the driver heard me or saw my signal. At the time the train passed me it did not appear to be slackening, but just as it went under the bridge it did appear to slacken. Immediately after this I heard the crash of the collision. Before the No. 222 train passed I could clearly see the tail light of the Southport train underneath the bridge. I do not think there was any smoke or steam hanging about at the time. When the train passed me the driver had not steam on, and his brake was not on. I noticed, however, that he applied his brake just as he went under the bridge. I am in the habit of seeing trains enter the station under the caution signal, and they usually enter the station at three or four miles per hour. When the train passed me I saw that the driver did not put on his brake, and I knew that there must be a collision. I spoke to the driver after the accident occurred, and I feel confident that he was quite sober. I cannot say whether the hand brake was on when the train passed me.

Jos. Woodward, main line inspector, states : I have been in the service of the Company 18 years, during 16 years of which I have been a main line inspector, and during 12 of which I have been at Victoria Station. On the 16th inst. I commenced duty at 3 p.m. to work until midnight, and I was working on the main line at Victoria east cabin. At about 10.26 p.m. I was in the inspector's hut. At that time I knew that the 10.15 p.m. train to Southport was standing on No. 10 road. Whilst I was in the hut I heard No. 222 train approaching, and I thought from what I heard that it was coming rather sharply. At this time I was talking on the telephone, but I at once let go the tube and ran out and tried to attract the driver's attention. He did not, however, see me. I had not a lamp with me at the time, but I shouted to him. At this time the engine was just passing my hut. I estimate the speed at that time at about 15 miles per hour. I cannot say whether steam was turned on at that time or not, but the automatic vacuum brake was not on. I cannot say whether the hand brake of the engine was on or not. I felt sure a collision must occur, so I at once went back into the hut and warned Cheetham Hill not to send any more trains. Trains entering the station under the "calling on" arm usually pass the inspector's hut at a speed of about 5 miles per hour, at a distinctly lower speed than this train did.

Isaac Roberts, locomotive inspector, states: About 10.26 p.m. on the night of the 16th inst. I was standing on No. 6 platform, Victoria Station. At that time the 10.15 p.m. Southport train was standing at the platform. I was standing by the side of the rear van of the Southport train. The rear of the train was about 70 yards behind the platform box home signal. I turned to walk towards east junction cabin, and just before I got to the Cheetham Hill road bridge I saw No. 222 train approaching. I immediately saw that it was approaching the station too fast, and I ran forward to try and attract the attention of the driver as I saw that a collision was inevitable. The driver did not appear to see me. After calling out to the driver I tripped over a brick and fell down, so I did not see the collision actually occur, but I heard the crash of it. I estimate the speed of the train at the time of the collision at about 10 miles per hour. I think that when the train passed me the automatic brake was on and the train was slackening speed. Immediately after the collision I spoke to the driver who was still on the footplate. He was quite sober at the time.

Christopher Howden, driver, states: I have been 27 $\frac{3}{4}$ years in the service of the Company, and have been a booked driver for 13 years. I am thoroughly acquainted with the road running into Victoria Station, Manchester, and have been accustomed to running there. On the 16th April I came on duty at 7 a.m. to work until 11.45 a.m. I then came on duty again at 8.40 p.m. to work to between 1 or 2 a.m. on the 17th. I had signed off duty on the 15th at 1.30 a.m. I was in charge of No. 222 special train from Manchester to Bradford. My engine was a four-wheels-coupled tank engine. It was fitted with the automatic brake working blocks on the four coupled wheels, and my train was fitted throughout with the automatic vacuum brake, which was in proper working order. I remember arriving at the home signal for east junction, Victoria. This was at about 10.20 p.m. I came to a stand there as the signals were against me. I remained standing there for about five minutes, and then the "Calling on" arm was pulled off. I then released my brake, and allowed the train to run down into the station by gravitation. Whilst running into the station I did not notice any signals being given to me by anyone. When passing the signal cabin I put the vacuum brake on slightly, so as to reduce speed. When I reached the cabin I estimate I was going at a speed of between five or six miles per hour. When I reached the Cheetham Hill road bridge I estimate I was going at about five miles per hour with the automatic brake still slightly on. When I was about three-parts of the way through the bridge I saw the tail lamp of the train in front of me. I was surprised to see it, as I did not expect that there would be a train standing so far back on the platform. Immediately I saw it I applied the brake as hard as I could, but I was unable to stop the train before the collision occurred. I do not think I reduced the speed of the train much, and I calculate we were travelling at about five miles per hour when the collision occurred. I was not injured myself, but my engine was considerably damaged. I do not get a good view into the station until I am under the bridge. I did not see the tail light of the train until I was actually under the bridge. The bridge was full of steam and smoke, and if this had not been the case I should have seen the light a few yards sooner. I am well acquainted with the Victoria Station signals for the line on

which I was travelling. If the home signal is lowered it means that the line is clear to the platform cabin, but if the "Calling on" arm signal is lowered it means that the line is not clear to the platform box, and that a driver must enter at caution. I know that as I enter the station under the "Calling on" arm that I have to have my train under control so as to stop it before reaching any obstruction. The only explanation I can give of not being able to stop my train before the collision occurred is that I did not see the train in front in sufficient time.

Eli Midgley, fireman, states: I have been 10 $\frac{1}{2}$ years in the service of the Company, and have been a booked fireman for a little over four years. On the 16th instant I was fireman for Driver Howden, and signed on duty, and worked the same hours as he did. I remember No. 222 train arriving at Victoria East Junction home signals. We came to a stand there as the signals were against us. We stood there about five minutes, and then the "Calling on" arm was lowered. The driver released the automatic brake, and I released the hand brake, but the driver did not turn on steam. I did not see anybody exhibit any signals or hear any shouting as we were approaching the station. I was keeping a look-out at the time. I calculate that we passed the cabin at a speed of five miles per hour. I cannot say when the automatic brake was first put on. When we had just passed under the archway I saw that there was a train in front of us. I was surprised to see the train so near us. The driver saw the train just before I did, and I saw him put the automatic brake on. I cannot say at what speed we were coming when we passed under the archway, but I estimate our speed at the time the collision occurred at about two miles per hour. I am well acquainted with the signals at the east end of Victoria Station. I know that when the "Calling on" arm is lowered, it means that we have not a clear road. I was not surprised to find a train on the line, but I was surprised to find it so far down the platform. I have never seen one so far down the platform before.

Abraham Alderman, goods guard, states: I have been 24 years in the service of the Company, during 20 of which I have been a guard. I came on duty on the 16th instant at 5 a.m., and signed off at 11 a.m., came on duty again at 8.30 p.m., expecting to finish at 1.30 a.m. I was riding in the leading van of No. 222 train, and I remember coming to a stand at the home signal for Victoria east junction at about 10.20 p.m. We stood there for about four minutes, when the "Calling on" arm was lowered, and the driver proceeded. After starting I did not hear anyone shouting, or see any danger signal. The whole time that we were running into the station, I was keeping a look-out, first on one side and then on the other. I estimate our speed when passing under the bridge at eight or nine miles per hour. Just when we were entering the bridge, I saw the lights of a train in front, and I then knew we were travelling too fast. Just at the moment the driver put the brake full on, and I estimate our speed at the time the collision occurred at three or four miles per hour. I was not hurt myself. I believe the engine of my train was damaged; the leading brake van and the next two coaches of the train were damaged. I have several times acted as guard to trains running into Victoria Station, but I have not done so for some time.

It did not occur to me that we were coming too fast, until I saw a train in front of us.

W. H. Naylor, goods guard, states; I have been 16 years in the service of the Company, during seven of which I have been a goods guard. On the 16th instant I booked on duty at 5.0 a.m. and booked off at 11.0 a.m. I signed on again at 3.0 p.m. to work until 1.30 a.m. on the 17th. I was the guard of No. 222 special. My train consisted of tank engine, six bogie carriages, and five six wheelers, one of the latter being a third class van. My train was fitted with the automatic vacuum brake throughout, and it was in good working order. I was riding in the rear van. We arrived at the east junction home signal at 10.18 p.m. My train came to a stand there as the signals were against us. After standing three or four minutes the train proceeded, but I did not see what signal was lowered. Soon after the train started I put the hand brake on, to steady it. I did not consider that the train was going above the ordinary rate for entering the station; not above four or five miles per hour. The first I knew of the collision was by feeling the shock of it, and I struck my head against the van. Previous to this I did not notice that the driver put on the automatic vacuum brake. As soon as I came to my senses I went to examine the train, and found that the first three coaches were damaged. I do not know whether any of the vehicles were off the road. I have acted as guard to trains running

into Victoria Station many times, and I am acquainted with the signals of the line on which I was running. I consider that the train entered the station at the usual speed that trains do.

Mr. J. H. Sedgwick, states:—I am station master at Victoria Station, Manchester, and have held that position for 21 years. I was on No. 6 platform at the time at which this collision occurred. At that time the 10.15 p.m. train to Southport was standing at No. 6 platform, with its brake van just opposite the end of the Refreshment room. This would be about 60 yards behind the platform box home signal. It is customary for trains to be standing at this platform with their tail end at this point when other trains are admitted to the station by the "calling on" arm, and the statements made by the driver and fireman that it is unusual for trains to stand as far back as that is incorrect.

Mr. David Campbell Rattray, assistant engineer to the Lancashire and Yorkshire Railway, states:—I heard that a collision had occurred, and reached Victoria Station soon after 11 p.m. I measured the distance from the end of the Refreshment room to the point at which the collision occurred, and it was exactly nine yards to the eastwards. The distance from the end of the Refreshment room to the platform home signal is just 50 yards, so that the collision occurred 59 yards to the east of the platform home signal.

Conclusion.

The circumstances under which this collision occurred were as follows:—

About 10.24 p.m. on the 16th April the 10.15 p.m. train from Manchester to Southport was standing at No. 6 platform, Victoria Station, with its tail end just 59 yards in rear of the platform home signal. Whilst this train was standing there awaiting the arrival of a Yorkshire train the signalman in the platform box—signalman Woods—was offered No. 222 special by the east junction signal box. As the line was not clear up to the platform box home signal, Woods, in accordance with the Company's rules, accepted this train with one beat of the bell, thus indicating that the station was blocked and that the train was only accepted with caution.

Previous to this signal being sent the No. 222 special had arrived at the east junction box home signal and had been brought to a stand there. After it had been standing there about a minute, signalman Wimpenny, who was on duty in the east junction box, received from the platform box the one beat referred to above, so he then, also in accordance with the Company's rules, lowered the calling-on arm, and the train proceeded on towards the station.

The Company's rules quoted above clearly shew the information which the lowering of this calling-on arm gives to the driver, viz., that the line is obstructed at some point outside the platform box home signal, and that he should therefore be prepared to stop his train short of the obstruction.

In this case the line was obstructed 59 yards short of the platform home signal, at which point the rear of the 10.15 p.m. train was standing, but in spite of the warning which the driver of No. 222 special had received, his train ran into the stationary train and caused an amount of damage to the rolling-stock which shews that the speed at the time of the collision must have been considerable.

Driver Howden, who was in charge of the engine of the No. 222 special, states that after seeing the calling-on arm lowered for him he ran past the east junction signal box at a speed of between five and six miles an hour, and that when he reached the Cheetham Hill road bridge he was still travelling at five miles an hour with the automatic brake slightly on. It was at this point—59 yards from the tail of the 10.15 p.m. train—that he first saw the obstruction in front of him, and though he applied the brake as hard as possible, he could not practically reduce the speed of his train before the collision occurred. Howden allows that he fully understood from the fact of the calling-on arm having been lowered for him to proceed that he would find the line obstructed somewhere before reaching

the platform home signal, but he states that he did not expect to find the obstruction so far behind that signal, and that owing to the bridge being full of steam and smoke he did not see the train in front of him in sufficient time to be able to prevent the collision.

If driver Howden's estimate that his speed when he first sighted the stationary train at a distance of 59 yards from it was not greater than five miles an hour is correct, he should have been able to bring his train at all events very nearly to a standstill before the collision occurred; judging however from the damage which was done to the rolling-stock it is clear that his speed at the time of the collision must have been considerable, and it is therefore almost certain that his speed when passing under the bridge must have been considerably above his estimate.

This view is borne out by the evidence of four witnesses who were present at the time, viz., signalman Wimpenny, inspector Bowens, inspector Woodward, and locomotive inspector Roberts.

Signalman Wimpenny was in the east junction box when the train passed that point; he estimates its speed at that point at 10 miles an hour, and he states that he once felt confident that a collision must occur; the engine had passed his box before he noticed it, so he was unable to take any steps to check it.

Inspector Bowens was standing on the ground just outside the east junction box and saw No. 222 special approaching the box; he estimated its speed at from 13 to 15 miles an hour, and he immediately recognised that unless the driver put on his brake at once there must be a collision; he accordingly shouted out and signalled to the driver with his lamp, but he does not think that he attracted his attention; the brake was not on at the time the train passed him, and the train did not seem to be slackening, but he noticed that the brake was applied just when the train passed under the bridge.

Inspector Woodward was at the time in the inspector's hut, but close to the east signal box, and was engaged in talking on the telephone. He heard the train approaching, and from the sound he felt sure that it was coming too quickly. He at once ran out and shouted to the driver, but was unable to attract his attention. This witness also states that the brake was not applied to the train at the time it passed him, and he estimates its speed when it passed him at 15 miles an hour.

Locomotive Inspector Roberts was on No. 6 platform at the time of the collision; he saw No. 222 special approaching the platform, and at once recognized that it was coming too fast, so he ran down the platform to endeavour to attract the driver's attention. The automatic brake was on when the train passed him, and it was slackening speed, but he estimates its speed at the time of the collision at 10 miles an hour. Judging from the damage done to rolling stock this latter estimate of the speed of the train at the actual moment of the collision would appear to be probably correct.

From the evidence of these four independent witnesses there appears to be little doubt that, considering that Driver Howden had been duly warned that the line was obstructed and that he was entering at caution, he allowed his train to approach the platform at far too high a rate of speed. The approach to the station certainly does not give a driver a good view of the platform, but Howden admits that he was thoroughly acquainted with the road, so there is no excuse for his not having had his train well under control. The responsibility for this accident must therefore rest on him.

It is satisfactory to know that the removal of the Cheetham Hill bridge, which is now being carried out, will materially improve a driver's view of the station when approaching it from the eastward.

The Assistant Secretary,
Railway Department, Board of Trade.

I have, &c.,
P. G. VON DONOP,
Lt.-Col. R.E.

APPENDIX.

DAMAGE TO ROLLING STOCK.

10.15 p.m. Manchester to Southport.

Composite, No. 59.—One headstock broken; and four buffers bent.

Third Van, No. 184.—One end, one side quarter, projection pillar, one headstock, two

diagonals, top stepboards broken; solebar damaged; one buffer broken; three buffers bent; brakework vacuum and heating pipes damaged.

Third Van, No. 822.—End panel damaged; one headstock broken; two bottom and one top

footboard broken ; three buffers bent ; one casting broken ; six leg irons bent ; brakework and steam fittings damaged.

Third Class, No. 195.—One middlebar broken ; four buffers bent ; and body moved.

Third Class, No. 2623.—Body moved.

Third Class, No. 788.—One headstock broken ; body moved ; two buffers bent.

Engine, No. 827.—Both tender buffers damaged ; angle iron of foot framing at back of tender bent ; tender tank slightly damaged ; tender vacuum train pipe damaged.

No. 222, *Special 10.25 p.m., Manchester to Bradford.*

Composite, No. 570.—One end, one headstock,

one end quarter, one door broken ; roof and seat badly damaged ; four buffers bent ; vacuum, Westinghouse, and steam fittings damaged.

Third Van, No. 211.—One end bottomside, end quarter and headstock broken ; four buffers bent ; vacuum and Westinghouse pipes damaged.

Third Class, No. 523.—Derailed.—One end, and one headstock broken ; centre casting bolts, two buffers bent.

Engine, No. 699.—Smokebox sides, front and door badly damaged ; a new smokebox complete required. New blast pipe wanted and four new buffer rams ; copper steam pipe in smokebox damaged, and the back plate of coal bunker taking out and straightening.

Damage to permanent way.—Nil.

Printed copies of the above Report were sent to the Company on the 22nd May.

LONDON AND SOUTH WESTERN RAILWAY.

Railway Department, Board of Trade,
8, Richmond Terrace, Whitehall, London, S.W.,
14th July, 1900.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with the order of the 23rd June, the result of my inquiry into the circumstances under which a collision occurred about 10.17 a.m. on the 20th June between a passenger train and the buffer stops at Hampton Court Station on the London and South Western Railway.

In this case a special train, consisting of an engine, tender, and 17 vehicles, on arriving at Hampton Court Station failed to stop before reaching the buffer stops at the end of the line, and consequently came into collision with them.

The speed of the train at the time of the collision was fortunately very low, and though a large number of passengers have complained of personal injuries sustained it is understood that none of them are of a very serious nature. The damage to rolling stock was trifling, and the only damage to the permanent way consisted of the displacement of the buffer stops.

The train to which the accident occurred was a special from Hastings to Hampton Court. The vehicles of the train were consequently the stock of the London, Brighton, and South Coast Company, and the train had been brought as far as Clapham Junction by an engine belonging to that Company. But at that point an engine belonging to the London and South Western Railway Company was attached to the train to take it on to Hampton Court, and a guard belonging to that Company also took charge of it.

The engine was a four-wheels-coupled tender engine, fitted with the Westinghouse brake, steam brake, and hand brake. The Westinghouse brake worked blocks on the four coupled wheels, and the hand brake on the six wheels of the tender. The vehicles of the train were all fitted with the Westinghouse brake, working blocks on 72 out of the 86 wheels of the train.

The train consisted of the following vehicles attached to the engine in the order given :—

- One third class brake van.
- Six third class carriages.
- One saloon carriage.
- Eight third class carriages.
- One third class brake.

Of these vehicles one was eight wheeled, seven were six wheeled, and the remaining nine were four wheeled. The length of the train with engine and tender attached was 153 yards. The weight of the engine and tender was 75 tons, and that of the train about 208 tons.