

DAMAGE TO 8.50 P.M. GOODS TRAIN, GOOLE TO SOWERBY BRIDGE.

Lancashire and Yorkshire Brake Van, No. 19.—
All timbers badly damaged.

Lancashire and Yorkshire Waggon, No. 1,138.—
All timbers badly damaged.

Lancashire and Yorkshire Waggon, No. 14,000.—
—All timbers badly damaged.

Lancashire and Yorkshire Waggon, No. 5,647.—
All timbers badly damaged.

Lancashire and Yorkshire Waggon, No. 19,597.—
—All timbers badly damaged.

Lancashire and Yorkshire Waggon, No. 641.—
Two solebars, two headstocks, three end door
planks, four axlebars, &c., broken, and wheels
displaced.

PARTICULARS OF DAMAGE TO PERMANENT WAY, &c.

One 30-ft. steel rail (86 lbs. section) broken ;
four 30-ft. steel rails (86 lbs. section) badly bent ;
28 sleepers broken ; 38 cast-iron chairs (56 lbs.
each) broken ; four signal-wire pulley-posts

broken ; six angle signal-wire pulleys broken ;
one signal-wire broken ; six steel fish-plates
broken ; four steel fish-bolts broken.

Printed copies of the above Report were sent to the Company on the 15th January, 1901.

LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.,
January 16th, 1901.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with the Order of 31st December, 1900, the result of my enquiry into the cause of the collision which occurred on the 24th December, 1900, at Lower Darwen Station on the Lancashire and Yorkshire Railway.

In this case the 5.46 p.m. up Midland express from Hellifield to Manchester ran into a Lancashire and Yorkshire light engine which was standing at the outer up home signal at Lower Darwen Station. The driver and fireman of the light engine, and four passengers in the Midland train were injured. The Midland express consisted of a four-wheels-coupled tender engine bogie front, running chimney first, fitted with the steam brake on the four driving wheels and six tender wheels, controlled by the automatic vacuum brake which was fitted to all the wheels of the train except the middle wheels of a third-class coach. The train was composed of:—

								Wheels.
Bogie engine composite brake	...	...	...	...	...	...	...	8
Third-class coach	...	...	...	...	...	...	...	6
Bogie composite	...	...	...	...	...	...	...	8
Bogie composite brake	...	...	...	...	...	...	...	8

Nothing was derailed. The damage to the Midland train and light engine is given in the Appendix. The accident occurred at about 6.36 p.m.

Description.

Lower Darwen Station, where the accident occurred, has the usual up and down lines running through it approximately east and west, but the up line is alone concerned in this case ; this runs from west to east.

Lower Darwen signal-box is on the north side of the up line and is 173 yards east of the east end of the up platform.

The positions of the up signals are as follows :—The signal called in the evidence the outer home, at which the light engine was standing, is the home signal for the platform, and is situated a short distance beyond the west end of the up platform, but on the opposite side of the line. It is 150 yards from the inner home and 323 yards from the signal-box. The signal called the inner home is the platform starting signal and is situated just at the east end of the platform, and therefore 173 yards from the signal-box.

The starting signal is an advance starter for the station and is 334 yards ahead of the signal-box.

The distant is below and slotted with the starting signal of the Engine Shed signal-box in rear, and is 600 yards behind the outer home signal.

Approaching from the Engine Shed box the up line curves to the left, then runs on the straight for 350 yards through the station, and then curves to the right, about 100 yards before reaching the signal-box.

There is a rising gradient of 1 in 96 all the way from the Engine Shed box to Lower Darwen Station.

There is a very good view by day of the signals and line, but at night the white head light of an engine standing at the outer up home signal would be beyond and in a line with the platform lamps at the station.

Evidence.

David Walton, fireman, in the employ of the Lancashire and Yorkshire Company, states: I have been in the service since July, 1890, and have been a fireman since December, 1892. On the date previous to the accident I signed off duty at 11.15 p.m. On the date of the occurrence I signed on duty at 6 p.m. to act as fireman to the driver working the 7 p.m. goods train Spring Vale to Liverpool. We came out of Lower Darwen engine shed at 6.25 p.m. and had a clear road from Engine Shed box to the outer home signal for Lower Darwen Station cabin, where we came to a stand. My mate went on the frame to oil the glands, and we had been standing there about seven minutes when the signal was lowered, and at the same time I noticed the head-lights of the Midland express coming round the curve. I whistled and shouted out to my mate "Look out," and I had just got the engine on the move when the Midland train struck the tender. I was thrown into the tender and my driver was knocked off the frame. We had got nearly to Lower Darwen Station signal-box when I stopped the engine by shutting the regulator. We whistled once approaching the outer home signal and once after coming to a stand. When I got to the station signal-box I said, "What's to do now?" to the signalman, and he said, "Be sharp, get out of the road, the express is here." I said, "It's too late, he's hit us." I left my engine and went back to see where my mate was, and I found that the Midland guard had got hold of him and he was sitting on the outside rail of the down road. I helped to get him out of the road and left him clear of the line. I then went back to the engine. The tender end of our engine was badly damaged. When I got back the signalman asked me how long would we be before we went back to the shed, but made no remarks to me about how the accident had occurred. I have not seen the signalman nor spoken to him since the accident. Some of my teeth were knocked loose and my leg was cut. I have not been on duty since.

Henry Cowlshaw, driver, in the employ of the Midland Company, states: I have been in the service 31 years, and have been a driver about 24 years. I signed off duty on the Sunday morning at 2.30 a.m. I signed on duty on the date of the accident at 10.30 a.m., and in the ordinary course I should have signed off at 9 p.m. I was working the 5.46 p.m. passenger train Hellfield to Manchester, and we left Blackburn at 6.30 p.m., seven minutes late. I think my train consisted of four bogie carriages=six. My engine, No. 1,667, was a four-coupled express engine bogie front, fitted with the steam brake on the driving and trailing wheels and six tender wheels, controlled by the automatic vacuum brake, which was fitted to all the wheels of the train with the exception of the middle wheels of a third-class coach. On approaching Lower Darwen Station I found the distant signal on, and I shut off steam and reduced speed, but on

catching sight of the outer home signal it was off, and on getting round the curve I was looking out for the inner home signal, which I saw was also off. Directly afterwards I saw a red light and shut off steam and said to my mate, "What light's that?" I did not realise what it was until I got within 40 or 50 yards of it. I think I first saw it about 80 yards off. The night was very dark. We were running fast at the time because I had put on steam when I saw the home signals off. When I realised that there was something on the line I applied the brake, and I was running about 15 miles per hour when I hit the Lancashire and Yorkshire engine. I held on tight and had not time to reverse my engine. When we came to a stand the engine and two coaches were past the outer home signal, my engine being just about the end of the platform. I got off my engine to see what was amiss and met my guard coming to me, and he asked me to go and look at a man whom he had found on the rails and had moved on to the side of the line. I walked down the train to examine it, and passengers were putting their heads out of the windows and asking what was up. I told them there was not much. As I was coming back a man put his head out of the window and said, "Send someone"—there was a man hurt in his compartment—and another shouted that a lady was hurt. Two porters were there immediately after the accident. After this I went on to the platform to tell the staff to send for some help. I enquired for the stationmaster, but did not see him. I asked someone on the platform whether Lower Darwen shed had been communicated with. I then went back to the engine and found it was so disabled that it could not be moved, and I sent the fireman to the signal-box, where I understood the stationmaster was, to tell him that I was unable to move the engine. Previous to my sending my fireman to find the stationmaster no one had enquired as to whether we could move the engine and train out of the way. So far as I can remember the first person in authority who came to see what was the matter with the train was inspector Adshead. Both framings of the engine were badly bent and the buffer plank smashed. The buffer of the tender of the Lancashire and Yorkshire engine was jammed underneath the frame of my engine and on to the top of the bogie wheels. I did not try to move the engine. The couplings were separated between the tender and the first carriage, the first and second vehicles were buffer-locked, and between the second and third the couplings were parted. The third and fourth were all right. No wheels of either engine, tender, or train were off the road.

Vincent Cottrill, fireman, in the employ of the Midland Company, states: I have been in the service about 10 years, and have been a fireman between six and seven years. I was fireman to driver Cowlshaw and worked the same hours as he did. My driver's statement, which I have

heard read, is correct. When my driver sent me up to the signal-box to see the stationmaster, I told the latter that our vacuum was destroyed, the first draw-bar hook was broken, and that a buffer was fast on the leading bogie wheels of the engine, and I said to him, "You can do nothing with it." This would be about 7 p.m.

John Henry Green, guard, in the employ of the Midland Company, states: I have been in the service for 21 years, and have been a guard for 15 years. I signed off duty at 5.30 a.m. on the Sunday morning, and came on duty on the date of the mishap at 7.45 a.m. to finish about 7.30 p.m. I took charge of the 5.46 p.m. passenger train Hellifield to Manchester at Blackburn, and we left that place at 6.30 p.m., seven minutes late. My train was composed as follows:—

	Wheels.
Engine No. 1,667	
Bogie compo. brake No. 3,028 ...	8
Third-class carriage No. 1,977 ...	6
Bogie compo. No. 3,153 ...	8
Bogie compo. brake No. 3,027 ...	8
Total ... 4 vehicles equal to	5½.

The vacuum brake was fitted and working on all wheels with the exception of the middle wheels of the third. On passing Lower Darwen distant signal it was on, and the driver whistled and slackened speed. After travelling a bit the driver put on steam, and the next thing I knew was coming to a sudden stand. I was knocked down twice in the van. I then got out and went up the train calling to the passengers to keep their seats. I saw the down Midland express coming, and at that moment I nearly stumbled over a man who was lying on the down metals. I pulled him out of the way until the express passed. I ascertained that it was the driver of the Lancashire and Yorkshire light engine, and after the express had gone I carried him to the platform and called someone to look after him. On returning to my driver he told me what had occurred, and I went back to Engine Shed box to protect my train. After I had gone back to the Engine Shed box I came back to the train and found that some of the injured passengers had been removed, and I assisted to get the other passengers out.

James Jackson, signalman, Lower Darwen Engine Shed box, states: I have been in the service 11 years, five years as signalman, and have been in the Engine Shed box nearly twelve months. I signed off duty on the Sunday at 6 p.m. I signed on duty on Monday at 2 p.m. to work until 10 p.m. I allowed light engine for Spring Vale to leave the shed at 6.25 p.m. It passed me the same time and was accepted by the box in advance (Lower Darwen Station) at 6.25. I did not receive "Train out of section" signal on the block bell for the light engine from Lower Darwen Station box. At 6.28 I received "Is line clear" signal for the 5.46 p.m. Midland express Hellifield to Manchester from Bolton Branch Junction box, and I accepted it at the same time and received "Train entering section" signal at 6.32. I forwarded "Is line clear" signal for it to Lower Darwen Station box at 6.32, and he acknowledged it at the same time. I did not lower my signals for it as I was not satisfied that the light engine had got clear, and called the signalman up at Lower Darwen Station box on the telephone and said to him "Now, I have not received clear for the light engine." He said "I have given you clear," and he assured me he had cleared for the light engine, and he said that it had passed him all right. I was then satisfied

in my own mind and I pulled off the signals for the Midland express. After the passing of the down express the signalman at Lower Darwen told me that the light engine had not passed and that it had been run into by the Midland train Hellifield to Manchester. I called the signalman up at Lower Darwen Station box, and he said he had had enough and could not talk to me. After this the Midland guard came back to protect his train and told me he had placed detonators on the line. There was a goods train standing at my up home signal at the time. I had been working with signalman Botwright all right in the afternoon and his working appeared to be correct. The only exception I now call to mind was a delay in clearing for an up slow passenger train which I gave him at 4.2. It passed my box at 4.4 and he did not clear for it until 4.16, after I had called his attention to it on the telephone. I have had no conversation with him (Botwright) since about the accident. I did not get "Obstruction danger" signal from Lower Darwen Station box. When the light engine left me it had good head and tail lights on.

Robert Kenyon, signalman, Darwen Iron Works box, states: I have been in the service six years, a signalman four years, and have been in Iron Works box about six months. On the day of the accident I came on duty at 2 p.m. to work until 10 p.m., having signed off duty previously at 2 p.m. on the Saturday. I received "Is line clear" signal for an up slow passenger train at 6.8 p.m. from Lower Darwen Station box, acknowledged it at 6.8, received "Train entering section" at 6.12, it passed me 6.14, was acknowledged by box in advance, Hoddlesden Junction, 6.12, "Out of section" given by me to Lower Darwen Station box at 6.14, and "Out of section" received by me at 6.15. At 6.25 p.m. I received the "Is line clear" signal for the light engine and acknowledged it at the same time, received "Train entering section" for it at 6.35, and it was acknowledged by the box in advance at 6.35. I received the "Is line clear" signal for the up Midland express from Lower Darwen Station box at 6.35, but I did not acknowledge it. I asked Botwright to cancel the light engine if he was keeping it there, but instead of this he gave me "Train entering section" signal for it. This was at 6.35. I told him on the telephone I could not see the light engine, and he then informed me that it was behind his home signal and that the Midland express had run into it. I did not get "Obstruction danger" signal. I had been working well with signalman Botwright, and nothing exceptional had occurred.

William Botwright, signalman Lower Darwen Station box, states: I was 41 last October. I entered the service of the Locomotive Department in 1879, and left in January, 1889, to go to the Permanent Way Department, which I left in May of the same year to join the Passenger Department. I have been a signalman all the time, including learning, and have been in Lower Darwen Station box since November, 1889. On the day of the accident I signed on duty at 2 p.m. to work until 10 p.m., having signed off duty on the Saturday before at 2 p.m. I was in good health, and had not left the house after getting home about 10 p.m. on the Sunday night until I came on duty at 2 p.m. on the Monday. At 6.10 p.m. I received the "Is line clear" signal for an up passenger train from Engine Shed box, and I accepted it at the same time, and received "Train entering section" signal at 6.11. It arrived at 6.12 departed 6.13, and "Line clear"

was given by me at 6.14 and received by me at 6.16 p.m. On the down line I had a slow passenger train for which I received the "Is line clear" signal from Iron Works box at 6.4 p.m., and I received "Train out of section" signal for it from Engine Shed box at 6.17. I then allowed the 3 p.m. goods train from Salford to Blackburn to depart from the up sidings at 6.26 p.m., and I received "Train out of section" signal for it from Engine Shed box at 6.31. I received "Is line clear" signal for the Spring Vale light engine from Engine Shed box at 6.26, and I acknowledged it at the same time; received "Train entering section" for it at 6.26, and sent the "Is line clear" signal forward to Darwen Iron Works box for it at 6.26, and the man there acknowledged it at the same time. I did not lower my signals for the light engine, and I cannot explain why I did not. At 6.20 p.m. I received "Is line clear" signal for the down Midland express from Iron Works box, and I accepted it at 6.26 after the departure of the 3 p.m. goods train. I have the train booked as entering my section at 6.43, passing me at 52, "Train out of section" given by me to Iron Works box at 52, and "Train out of section" received by me from Engine Shed box at 6.53. These figures are all wrong, but I put them down directly after the train had passed, and can offer no explanation for the wrong booking. I received "Is line clear" signal for the up Midland express from Engine Shed box at 6.32 and acknowledged it at the same time, and received "Train entering section" signal at 6.34. I offered the "Is line clear" signal to Iron Works box for the train at 6.32, but the signalman there did not accept it. I have heard what signalman Jackson says as to calling me up on the telephone when I accepted the up Midland express, and asking me to give "Train out of section" signal for the light engine, and now remember that that was so, and that I told him the engine had passed me and that the

line was clear. I looked both up and down the line and I could not see the light engine. When the light engine arrived at my box after the collision the head light was lit. As I had not received "Train out of section" signal for the light engine from Iron Works box and he did not accept the Midland train, I intended to bring the Midland express up to my advance starting signal, and I kept this signal at danger. I lowered my home signal when the express had got about half-way between Engine Shed box and my home signal, and I lowered my starting signal directly after I had lowered the home. I know Rule 40 (a) and did not carry it out. The accident happened between 6.35 and 6.36. I did not give the "Obstruction danger" signal to the box on each side of me, as I was too much flurried.

John Whittle, driver, states: I have been 23 years in the Lancashire and Yorkshire Company's service, 12 years as driver. On December 23rd I signed off at 11.15 p.m., and came on duty again at 6 p.m. on 24th, to work till 5 a.m. on 25th. I was going to act as driver of the 7 p.m. goods train from Spring Vale to Liverpool. I came out of Lower Darwen engine shed at 6.25 p.m., and had a clear road from the Engine Shed box to the outer home signal at Lower Darwen Station box, which was against me. When I saw the signal against me I whistled once before coming to a stand. After standing there about a minute I told my mate to look out while I went round the framing to oil the glands. I was on the frame about five minutes, during which time the fireman whistled again. Then he called out to me, "Look out." I looked back and saw a train about 20 yards off. I got up and took hold of the hand-rail, but was knocked off by the collision, and became insensible. I did not send my fireman to the signal-box as we had been standing so short a time. After waiting 10 minutes or so I should have sent him.

Conclusion.

This accident was caused by the fact that signalman William Botwright at Lower Darwen Station-box after accepting the light engine from the signal-box in rear—Darwen Engine Shed box—forgot to lower his outer home signal for it, and so left it standing there until it was run into by the following Midland express which he had accepted under the impression that the light engine had gone forward.

Signalman Jackson at the Engine Shed box offered Botwright the light engine at 6.25 p.m., and it was at once accepted by him. At 6.32 p.m. Jackson offered Botwright the Midland express, and it was also at once accepted by him, but as Jackson had not received the "Train out of section" signal from Botwright for the light engine, he did not lower his signals for the express. He called Botwright up at the telephone and said, "I have not received clear for the light engine." Botwright assured Jackson that he had cleared for the light engine and said it had passed him all right, so Jackson then lowered his signals for the express. Botwright at 6.25 p.m., when he accepted the light engine offered it to the box in advance—Darwen Iron Works box—and it was at once accepted by Kenyon, the signalman there. At 6.32 p.m. Botwright offered Kenyon the Midland express, but as the light engine had not arrived Kenyon naturally did not acknowledge the bell signal, but called Botwright up on the telephone and asked him to cancel the light engine if he was keeping it back, and then Botwright gave him the "Train entering section" signal for it. Botwright even then apparently did not realize that anything was wrong, and was still under the impression that the light engine had gone forward, as he could not see it after looking both up and down the line. At 6.34 p.m. Botwright received the "Train entering section" signal for the Midland express, and as he had not received the "Train out of section" signal for the light engine from Kenyon in the box in advance he states he intended to bring the express up to his advance starting signal which he kept at danger, but instead of keeping his home signal at danger until the express had come to a stop or nearly so at it, and then lowering it, as he should have done, he pulled

it off when the express was about half-way between the Engine Shed box and the signal, and lowered his starting signal directly afterwards. Just as the home signal was lowered the fireman of the light engine saw the head lights of the Midland express engine coming behind him, and he at once whistled, shouted to his driver who was on the engine frame, and put on steam, but just as the engine began to move it was run into from behind by the express.

The driver of the light engine was knocked off the frame and severely injured, but is recovering and was able to give evidence at the Inquiry. He fell across the down road and narrowly escaped being run over by a passing train, being got out of the way just in time by the guard of the Midland express.

Signalman Botwright fully admits his two mistakes and must bear the entire responsibility for the accident. He is unable to offer any explanation as to how he forgot to lower his home signal for the light engine. He bears an excellent character and is a steady and intelligent man and is in perfect health. He had been over 11 years in the Lower Darwen Station box. He had been on duty about 4½ hours at the time of the accident having previously been off duty for 48 hours.

No other servant of either Company is to blame in any way.

The Assistant Secretary,
Railway Department, Board of Trade.

I have, &c.,
E. DRUITT,
Major, R.E.

APPENDIX.

PARTICULARS OF DAMAGE.

Engine No. 1,667.—Engine buffer plate broken; both engine buffers broken; leading draw-bar hook broken off; both outside frames broken; both inside frames bent; vacuum pipes broken; both life guards bent and bolts sheared off; all footplate and angle iron at the leading end of engine twisted and broken, and rivets sheared off.

Midland Rolling Stock.

Midland bogie compo. brake 3,028.—Both headstocks, one longitudinal frame, two centre top beds, one centre longitude, one spring bed, and one bottom side rail damaged; one centre top casting, two buffer castings, one draw-bar hook, one bottom end frame, two spring shoes, one quarter light, &c., broken; four buffer rods bent; body moved on frame; two seats moved.

Midland third-class carriage 1,977.—Three end panels, one headstock, one buffer casting, &c., broken; two buffer rods and one axle-guard bent; one seat moved out of place.

Lavatory bogie compo. 3,153.—One headstock, one top centre casting and draw-bar broken.

Midland bogie compo. brake 3,027.—One top centre casting and bolts broken.

Lancashire and Yorkshire light engine 215/6.—Back of tender body cut open; tender buffers and plate broken; both sides of tender frames bent; trailing tender axle bent; water catcher damaged; brackets off water catcher diaphragm broken; tender brake rods bent; L.H. tender axle-box broken.

Printed copies of the above Report were sent to the Companies concerned on the 12th February, 1901.

LONDON AND SOUTH-WESTERN RAILWAY.

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

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with the the Order of the 4th ultimo, the result of my enquiry into the causes of the collision, which occurred on the 1st October, about 8.22 a.m., between a horse-box train and a passenger train, at Virginia Water Station, on the London and South-Western Railway.

In this case, a train, consisting of a tank engine, three passenger coaches and a brake-van, whilst standing at the up platform for the Chertsey branch, waiting to take up passengers, was run into by a horse-box train travelling from Kensington to Woking. The horse-box train consisted of a tank engine, bunker leading, two horse boxes, a carriage truck, and a guard's van.