

block were very greasy, and no doubt the springing of the buffers which had been compressed when the engine set back on to the nine waggons just gave the single truck sufficient impetus to move slowly down the siding, when the engine and nine trucks started away from it. The truck was standing when detached on a falling gradient of 1 in 90, and 12 yards nearer the outlet siding the gradient changes to 1 in 120 to close by the fouling point, where it becomes 1 in 500. The distance the truck ran was just under 150 yards.

Just after the engine and nine trucks had gone back into the Crane siding, the signalman at 7.6 p.m. received "Is line clear" signal for the 6.52 p.m. Wakefield to Dewsbury passenger train, and after ascertaining that the engine was well inside the sidings signal, he placed that signal to danger, opened the trap points for the sidings, and accepted the passenger train at 7.7 p.m. But by this time the single truck must have got through the trap points of the Washing siding, and it apparently came to a stand fouling the main line just at the points leading into the carriage sidings.

A minute or so later the passenger train ran into the truck, the engine striking it a glancing blow and knocking it clear of the down Wakefield-Dewsbury line on to the up Thornhill to Dewsbury line adjoining.

The shunter on going back with the nine waggons into the Crane road walked on the side of them away from the Washing sidings and so did not notice the single waggon moving, nor did the driver or fireman of the shunting engine, who no doubt were looking to the work they were immediately concerned with. It being quite dark at the time it was impossible for the signalman to see the single waggon moving down the siding, and as he ascertained that the engine was inside the sidings signal before accepting the passenger train, I do not consider any blame rests on him for the collision.

In view, however, of the fact that the fouling point of the sidings and main line is not visible from the signal cabin, the Company should, I consider, give instructions that after shunting operations of any kind, the signalman should always receive a message from the shunter or person in charge that everything is secure in the sidings and that the running lines are clear, before lowering his signals for the main lines, in order that Rule 62 (b) of the General Rule Book may be strictly carried out.

The Assistant Secretary,
Railway Department,
Board of Trade.

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

Printed copies of the above Report were sent the Company on the 9th February, 1901.

LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.,
December 15th, 1900.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 1st December, the result of my enquiry into the causes of the collision which occurred on the 28th November, near Brighouse East Cabin, on the Lancashire and Yorkshire Railway.

In this case the 3.32 a.m. up passenger train from Normanton to Halifax ran into the brake van and 21 waggons that had broken away from the 8.50 p.m. goods train from Goole to Sowerby Junction, and which had been left standing on the up main line with the brake van 405 yards from Brighouse East signal-box.

There was only one passenger in the Normanton to Halifax train, and he was uninjured, but the driver and fireman of this train were somewhat badly shaken.

The Halifax train consisted of a four-wheels-coupled tender-engine with leading bogie running chimney first, a third half van, a bogie composite, a bogie third, a bogie third van, a North-Eastern Company's open fish truck, and two brake vans. The engine was fitted with the automatic vacuum brake on the four driving wheels and six tender wheels, and with a hand brake on all six tender wheels. All the carriage wheels were braked except the middle pair of the leading van and those of the fish truck. The latter was fitted with a train pipe.

The engine and leading brake van were thrown off the rails, and the former badly damaged.

The brake van at the tail of the Goole train was smashed to pieces, and five trucks damaged.

Particulars of the damage to the rolling stock and permanent way are given in the Appendix.

The collision occurred at 3.53 a.m.

Description.

Brighthouse East signal cabin, near which the accident occurred, is the block cabin between Bradley Wood Junction box and Brighthouse West box on the Lancashire and Yorkshire Railway. For some distance towards Bradley Wood Junction there are only up and down main lines which run approximately east and west.

The signal cabin is on the north side of the down main line, and about 15 yards west of it, two loop lines join the main lines.

The up loop, into which the leading part of the 8.50 p.m. goods train went, is on the south side of the up main, on the opposite side of the lines to the signal-box. This loop is 433 yards long in the clear, and can hold an engine and 62 to 65 waggons, according to their length, its outlet being opposite Brighthouse West cabin, the next block box in advance.

The down loop starts at this latter cabin and has its outlet 15 yards west of Brighthouse East cabin. Connected with this loop are numerous sidings of a goods yard.

The Brighthouse East up home signals for the main and loop lines are bracketed on a post 52 yards east of the cabin, and the up main line distant is 821 yards from the up home signals.

The point of collision on the up main line was 405 yards east of the cabin, and owing to the curve and a bank of a cutting further down the line, the lights on the rear of the guard's van at this point could not be seen at a greater distance than 330 yards by a driver travelling on the up main line.

Evidence.

Edward Hardcastle, goods guard, states: I have been in the service 23 years, and have been a guard since 1891. I booked off at 12 noon and I booked on duty again at 8.20 p.m. on 27th November at Goole, and on account of the accident I was relieved on the date in question at 7.20 a.m. on 28th. As a rule I am relieved at 6 a.m. I was working the 8.50 p.m. up train, Goole to Sowerby Bridge, and we left Mirfield at 3.21 a.m. with 18 goods, 16 coal, and 21 empties. As we approached Brighthouse East, the signals were on, and the guard's van and the rear portion of the train came to a stand about 200 yards from the East box. I do not know whether the engine actually came to a stand and I was unaware that the train had broken loose. As near as I can judge my van would be standing 10 minutes before the collision occurred. After we had been standing about five minutes I looked at my watch and it was 3.47, and both the loop and main line signals were then on. The fact of the express being about due came into my mind. I came to the conclusion that the signalman was unable to put us into the loop and sat down to finish my breakfast, which I had commenced after leaving Mirfield. Shortly afterwards I heard the express approaching and I immediately jumped out of the van on the down side without having time to get my lamp or do anything to warn the approaching train. I had crossed the line and got about six yards away from the brake-van when the collision occurred. After we had been standing about three minutes the 2.10 a.m., Brighthouse to Penistone goods, passed us on the down main line, and my impression was that

this train had been occupying the up loop, and that was the reason why we were being detained; we are frequently detained at this point under similar circumstances, sometimes once or twice a week. After the collision I discovered that 21 waggons and my brake had been left behind on the main line, and I account for not noticing the break-loose by the fact that the next waggon to my van was loaded with hay which projected over the sides and which was higher than my van, and next to that I had several high loaded waggons of wool. On coming to a stand I did not apply the brake of my van, but the waggons did not move backwards, although the line at this point is on a rising gradient. When we first came to a stand I did not look for the signals. Directly after the collision I noticed two engine-men and two guards get out of the front of the passenger train with a lamp, and as I had left my lamp in my van I asked them to go and see what had happened to the driver and fireman of the passenger train. They did so, and just as we got to the engine the driver appeared and stated that he was all right and nothing much the worse. I then went to the rear of the passenger train and met the guard coming up. After a short conversation he went back to protect his train, and I went to the signal-box and told the signalman what had happened. When I arrived there I shouted to the signalman from the four-foot, when he came to the window I said "Do you know what has occurred, mate," he replied "No, what's to do." I said "The express has run into my train." He did not appear to be aware that the whole of our train was not in the loop, and

after looking towards the loop and realising that it was not there, he went back into the cabin without saying anything further. I then went on towards the goods yard and met goods inspector Anderson and told him what had happened. When I first saw the passenger train, about 100 yards away from my van, the driver had full steam on, and I cannot say whether he had shut off steam or not before he struck my train.

Richard Sykes, signalman, states: I have been in the service seven years and eight months, and have been a signalman four years, six months of which I have been at Brighthouse East box. I booked on duty at 10 p.m. on 27th November at Brighthouse East box to work until 6 a.m. on 28th, having booked off duty the day previous at 6 a.m. I received "Is line clear?" signal from Bradley Wood Junction for the 8.50 p.m. goods train, Goole to Sowerby Bridge, at 3.28 and accepted it at 3.30 a.m. I could not accept it at 3.28 because at that time I expected to have the 11.50 p.m. goods, Bradford to Brighthouse, train to put into the up loop, as the inspector in the yard had informed me that he could not then deal with it. In less than two minutes the inspector telephoned that he could deal with this train in the down goods yard, and I then accepted the Goole train as the up loop was then quite free. I received "Train entering section" signal for the Goole train at 3.40 and the engine passed my box at 3.43. I offered it to Brighthouse West at 3.40 and it was accepted at the same time. I did not take off my signal immediately because, just as Brighthouse West accepted the train, the telephone circuit bell rang and I went to that, and afterwards had some conversation with the goods yard inspector on the telephone with regard to an approaching train from Luddendenfoot. This caused me to forget to take my loop signal off for the Goole train until I heard the driver whistling. When I took the loop signal off, the engine of the Goole train was about 100 yards from it, and my impression is that it did not come to a stand. As soon as the engine of the Goole train passed my cabin I turned to do some other work in connection with the down line, and I did not notice the brake of the Goole train pass my box. At 3.44 the 2.10 a.m., Brighthouse to Penistone, left the down loop and I then looked to see if the Goole train was clear in the up loop. I saw some lights some distance up the loop, which I took to be its tail light, and I gave "Out of section" signal to Bradley Wood Junction at 3.44. I put on my loop signal and reversed the points for the main line at this time. At 3.48 I received "Is line clear?" signal for the 3.22 a.m. passenger train, Normanton to Halifax, and I accepted it at the same time, and it was also accepted at Brighthouse West at 3.48. I received "Train entering section" signal at 3.52. When I accepted the express at 3.48 I immediately took off the signals for it, and about 3.53 I heard a crash and the wire from my up distant signal was plucked twice, which gave me the impression that some boys working for Messrs. Holme and King had fallen over the wire, and I thought the reason for the express not arriving was that the driver had seen these persons crossing the line and had brought his train to a stand to see if he had hit anyone. A minute or two after I had heard the crash a goods number-taker telephoned from the shunters' cabin in the yard that half of the Goole to Sowerby Bridge train was in the loop, did anyone know where the other half was? I replied that if the train is not complete in the loop the express had run into the rear portion below here. Shortly

afterwards, guard Stansfield, of Mirfield, who was travelling by the passenger train to act as relief-guard, came to my box and shouted from the six-foot way:—"Hello, Bobby, do you know that part of the Goole to Sowerby train is down in Holme and King's new railway, and has been run into by the express?" I replied that I was afraid something of the sort had happened from the information I had got from the number-taker. The entries in my book that the Goole train arrived at 3.43, and was given "Out of section" at 3.44, were made after 3.44, but before I had accepted the Normanton to Halifax train at 3.48. I cannot say that I saw red lights up the loop; they might have been white lights, it was rather hazy at the time. I am sure I looked for lights and that I saw something which led me to believe that the whole of the train had entered the loop. I did not give the "Obstruction—danger" signal in either direction, although I know the rule to that effect, because I did not think it necessary as I knew exactly how things were, and that there was nothing moving, and that nothing would be made safer by so doing. About 15 minutes after the accident goods inspector Anderson, who had been to the scene of the accident, came back and said both lines were blocked, and that I must telephone for the traffic to be diverted; this was done and the breakdown van wired for. I know the up loop holds between 64 and 68 waggons, and the 8.50 p.m., Goole to Sowerby Bridge, has usually 40 to 50 waggons. When I saw what I took to be the tail lights of the 8.50 p.m. train some distance up the loop, I thought that perhaps the signalman at Brighthouse West had let it out on to the main line to cross some waggons over to the yard, although he must have known that the express was just due.

Samuel Greenwood, driver, states: I have been in the service since 1866, and a driver since 1877. On November 27th I signed off duty at 12.5 p.m. and on again at 8.5 p.m. to work until about 5.45 a.m. on 28th. I was working the 8.50 p.m. goods train, Goole to Sowerby Bridge, and we had a clear road to Bradley Wood Junction, where I whistled for the loop at Brighthouse East. The distant signal for Brighthouse East was on, and I reduced speed to be prepared to stop at the home signal. On approaching the signal both the loop and main line arms were at danger, and I whistled again for the loop. Before I had come to a stand, and when I was about 15 waggons from the signal, the loop arm dropped, and I gave the engine steam and drew cautiously into the loop. I did not feel any pluck in the train, and when passing the box I looked towards it, but do not know whether the signalman was looking out or not. He did not show us any light. I happened to catch sight of the cabin clock and noticed it was 3.42. I travelled along the loop cautiously and came to a stand with the engine close up to the outlet signal at the West end. After standing two or three minutes the West Box up home signal for the main line was pulled off, and I said to my mate, "We're inside clear at the other end." I could not have seen the side lights of the brake owing to the curve and bank at this point had it not become detached. After leaving Mirfield I could not see the side light of the van on account of the curves and a large sheeted waggon next the van. I looked back after coming to a stand in the up loop. I could not see the East cabin on account of the haze. Shortly after this a number-taker came down and told me that we had only half of our train, and I then said, "Run and tell the signal-

man." I am quite sure there was no jerk which might cause a breakloose when we were slackened at the loop signal for the East Box. I did not apply my brake suddenly on noticing the loop signal was at danger, as it was not necessary to do so, seeing that I was running slowly and that the signal came off. I am sure that I did not apply steam sharply and that nothing happened which might lead the guard or myself to expect a breakloose. After the collision occurred I went down my train to examine it, and found that we had 34 waggons attached to my engine, and that the coupling at the trailing end of the last wagon was intact, but there was one link on the draw-bar hook which had evidently broken away from the 35th wagon. I went on down the line and found that the leading wagon of those left behind on the main line, and which belonged to J. L. Thompson, had only a D link left on the draw-bar hook. I looked for the remaining link on the line and found it under the second carriage of the passenger train. It was broken in two parts, and the parts now produced are those I found. The link was slightly faulty at one end. My engine was a six-coupled tender-engine with six-wheeled tender, fitted with the automatic vacuum brake on all six wheels of engine, and six tender wheels, and hand brake on six tender wheels. It was running chimney first.

John Dyson, fireman, states: I have been in the service since 1891, and have been a regular fireman since April, 1900. I was working with driver Greenwood on the day before the accident, and signed on duty at the same time and to work the same hours as he did. I am quite certain that I felt no jerk which might cause a breakloose, and I corroborate the statement of my driver.

J. W. Steele, guard, states: I have been in the service 26 years and a guard 18 years. I came off duty at 6 a.m. and booked on duty again at 7.30 p.m. on November 27th to work until 6 a.m. on 28th. I was working the 3.22 a.m. passenger train, Normanton to Halifax. We left Mirfield two minutes late. I was checking parcels, and the first I knew about anything being wrong was when I found myself on the van floor, with parcels and mails on the top of me. As soon as I collected myself I got out of the van and walked up the train to see what was the matter. I met the goods guard and told him to go to the cabin and stop all traffic. A passenger looked out of one of the carriages, and when he saw me he came and asked what was the matter. I told him, and asked him if he was hurt, to which he replied "No." The passenger then appears to have gone up to the station. I then immediately went back to protect my train as far as Bradley Wood Junction, placing fog signals on the rails

at intervals until I got there. My train was composed as follows:—

	Wheels.
Engine	—
Third half-van	6
Bogie composite... ..	8
Bogie third	8
Bogie third van	8
North-Eastern open fish truck	4
Brake van	4
Brake van	4

with an automatic vacuum brake on all wheels except the fish truck and two middle wheels of the third half van. The fish truck was fitted with a train pipe. The van next to the engine had all six wheels off the rails. I did not notice the driver apply the vacuum brake before the collision occurred. I was a bit shaken when knocked down, but was all right after a few days.

J. Glover, driver, states: I have been in the service since 1869, and a booked driver since 1884. On November 27th I signed off duty at 10.30 a.m., and on November 28th I signed on duty at 1 a.m. to work until 10.30 a.m. I was working the 3.22 a.m. up train from Normanton to Halifax. We left Mirfield at 3.47, our next stop being Brighthouse Station. We had a clear road from Mirfield and all signals were off for us at Brighthouse East box. On rounding the curve approaching the latter place I caught sight of three red lights ahead, but first thought that a goods train had been shunted on to the down main line and that the guard had forgotten to change his lights. It however immediately struck me that the lights were on our road, and I should then be about 150 yards from the point of collision. We should be travelling about 40 miles per hour, and I at once shut off steam and had barely got the brake full on when we struck the van. The collision was a very severe one and the train in front was, I think, propelled some considerable distance. I stopped on the footplate and was not thrown down, although I got a severe shaking. My engine was a four-coupled bogie front tender engine, running chimney first, with vacuum brakes on four driving wheels and six tender wheels, and hand brake on six tender wheels, and it was thrown off the rails and badly damaged. I made the engine right by slacking the fire, and I saw that the guard had gone back to protect the train.

W. Mitchell, fireman, states: I have been in the service for six-and-a-half years and have been an extra fireman for four years. I had not worked on the day previous to the accident, and on the day of the occurrence I signed on duty at the same time as driver Glover and to work the same hours. I corroborate the statement of my driver.

Conclusion.

This collision was caused by carelessness on the part of signalman Richard Sykes, who failed to watch the 8.50 p.m., Goole to Sowerby Bridge train, as it passed his box—Brighthouse East—and who gave the "Train out of section" signal for it to Bradley Wood Junction, the cabin in rear, without satisfying himself that the whole of it had passed into the up loop. Sykes had accepted the train at 3.30 a.m., and he received the "Train entering section" signal for it from Bradley Wood Junction at 3.40 a.m., and he offered it to the cabin in advance—Brighthouse West—at the same time, and it was accepted by the signalman there also at 3.40 a.m.

When it was accepted by Brighthouse West at 3.40, Sykes did not at once lower his signal for it as he was just then called to the telephone, and in consequence the train was

checked, but did not come actually to a stand, and the driver gave his engine steam again when about 100 yards from the loop signal, and went on slowly into the up loop with the leading portion of his train, leaving 21 waggons and the brake van on the main up line, the coupling of the 35th waggon having broken.

The driver, Greenwood, states that he felt no jerk on the train and that nothing happened to lead him to suppose that the train had parted, and in this he is corroborated by his fireman and guard. But from the position where the broken link was found, and from the statement of the guard Harcastle, it is most likely that the train parted just as the engine was given steam, with the result that the engine and 34 waggons went on into the up loop, and 21 waggons and the guard's van were left standing on the up main line.

As before stated, Sykes did not watch the Goole train as it was passing his box, and so failed to observe that it had no tail lights, his excuse for not doing so being that he turned round to do other work.

At 3.44, Sykes states that he looked to see if the Goole train was clear inside the up loop and that he saw some lights some distance up the loop which he took to be the tail lights of the Goole train, but he could not say whether they were red lights or no, and thinks they may have been white ones, and instead of satisfying himself that all the train was in the up loop, he immediately gave the "Train out of section" signal for it to Bradley Wood Junction, and at 3.48 accepted the Normanton to Halifax passenger train. He at once took off his signals for it, having previously put the loop signal to danger and reversed the loop facing points for the main line. The result was that the passenger train with all signals off for it ran at a speed of at least 40 miles an hour into the guard's van at the rear of the 21 waggons that had been left standing on the main line.

The guard, Harcastle, hearing the express coming jumped out of his van and by so doing saved his life as his van was smashed to pieces. The driver and fireman of the passenger train had a wonderful escape, neither being hurt beyond a severe shaking. Glover, the driver of the Normanton to Halifax train, on rounding the curve, caught sight of the three tail lights on the guard's van, probably when somewhat less than 300 yards from it,—the greatest possible distance that he could have seen them was 350 yards—but he did not at once shut off steam and put on his brakes, as he says he thought that the lights were those of a goods train that had been shunted on to the down main line, and that the guard in charge had forgotten to remove them, but realizing immediately afterwards that they were on the up road, he shut off steam and had barely got the vacuum brake full on when the collision occurred.

The entire blame for the accident must rest on signalman Richard Sykes who neglected to carry out a most important duty. He further neglected to send the "Obstruction danger signal" in either direction after the accident, and although no danger resulted from his not doing so, he was fully aware of the rule on the subject and should have carried it out.

Sykes has four years' experience as signalman, and had been on duty six hours at the time of the accident, having been previously off duty for 16 hours.

The Assistant Secretary,
Railway Department, Board of Trade.

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

APPENDIX.

DAMAGE TO PASSENGER TRAIN.

Engine, No. 698.—Engine main framing broken; front platform and buffer plate torn off; bogie casting broken; bogie frame and motion plate bent; all brake pipes, life guards, feed pipes, and chimney broken off; sand boxes, cylinder mud cocks, brake hangers, hand rails, dome cover, ash pan, and smoke box door and front badly damaged.

Tender.—Main frame, hand rails, and brake shaft hanger bent, and feed pipes broken.

Lancashire and Yorkshire Bogie Composite, No. 771.—One headstock split, and one shackle bent.

Lancashire and Yorkshire Third Van, No. 2,200.—One headstock, two end longitudinals, four end lights, one opal light, &c., broken; one end smashed in and buffer rods, &c., bent.

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.