

The
VIRTUAL MUSEUM
of the
LANCASHIRE & YORKSHIRE RAILWAY

Accident Reports.

3 December 1899

BoT Report into Accident at
Bolton.

(7 Pages).

and guard, it must be pointed out that it is clear from the evidence that both these orders have been habitually disregarded by the Company's servants, and it seems strange that this fact should not previously have been brought to light.

The Assistant Secretary,
Railway Department, Board of Trade.

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

APPENDIX.

DAMAGE TO ROLLING STOCK.

Third van, No. 2,482.—Two headstocks and one side of coach broken, one end staved in, partition of van compartment broken, footboards and three axle-boxes broken.

Composite, No. 119.—Two headstocks, five bottom side panels, door pillar, one seat and three axle-boxes broken.

Bogie third-class van, No. 878.—One headstock, top and bottom footboards, one projection, four leg-irons and one axle-box broken, and the bogie at one end of coach damaged.

Goods brake van, No. 22,743.—One end of van and inside partition broken, one headstock, one axle-box, one buffer casting, three roof boards, and three end lights broken.

Engine, No. 872.—Platform angle iron, vacuum pipe and buffer-plate damaged; foot-step broken.

Tender.—Hand-rail and foot-step broken; buffer-plate bent.

Printed copies of the above Report were sent to the Company on the 19th January, 1900.

LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.,
2nd January, 1900.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with the Order of the 11th December, 1899, the result of my enquiry into the accident which occurred about 9.30 a.m. on the 3rd December at Bolton Station on the Lancashire and Yorkshire Railway.

In this case, while the 7.10 a.m. train from Hellifield to Manchester was standing at the Bolton Station platform it was run into in rear by the 7.20 a.m. train from Fleetwood to Manchester.

A complaint of slight injuries sustained has been received from one passenger, but no one else appears to have been injured at all.

The three rear trucks of the Hellifield train, containing theatrical properties, were severely damaged, and the engine and leading vehicle of the Fleetwood train—a brake van—were slightly damaged.

The Hellifield train consisted of a tank engine with the following vehicles attached to it in the order given: bogie van, bogie third-class, two composites, two third-class, a half van, three milk trucks, two open carriage trucks and a covered truck. The train was fitted with the automatic vacuum brake working blocks on the wheels of all the vehicles.

The Fleetwood train was made up as follows: engine, tender, bogie van, bogie third, bogie composite, bogie van, third half van, composite and ordinary third-class. The guard was travelling in the fourth vehicle from the engine, having three vehicles behind him. The train was fitted with the automatic vacuum brake, working blocks on 60 wheels out of the 66 wheels of the train. The engine was a four-wheels-coupled tender engine, fitted with automatic vacuum brake, working blocks on the four coupled wheels of the engine and on the six wheels of the tender. The brakes are reported to have been in excellent order.

The damage done to rolling stock and permanent way is given in the Appendix.

Description.

Bolton Station, where this accident occurred is provided with two platforms between which are four lines of rails running through it in directions which are approximately north and south. These lines are known respectively as the up platform, up main, down main and down platform lines. The first named line is the most easterly of them, and the remainder lie to the west of it in the order given.

Just to the north of the station, and under an over-bridge known as the Trinity Street Bridge, is the junction between the lines from Hellifield and Fleetwood, which approach the stations in directions which are respectively north and north-west. Each of these is a double line, but in each case before reaching the junction, the double line opens out into four lines, and these two sets of four lines unite under Trinity Street Bridge and form the four lines previously described as running through the station.

This accident is almost entirely concerned with the up platform lines from Hellifield and Fleetwood respectively, *i.e.*, the easterly one of each set.

The signals for trains approaching Bolton on these two up platform lines are worked from what is known as the Blackburn Junction signal cabin, which is situated between the two lines and 110 yards to the north of this junction under Trinity Street Bridge.

The only signals with which this accident is concerned are those for the up platform line from Fleetwood; these are situated as follows:—

	Yards.
Blackburn Junction up outer distant ...	833 to the north of the box.
" " inner " ... 611 " "	
" " outer home ... 163 " "	
" " inner " ... 60 to the south of the box.	

Both the above-mentioned outer and inner homes are locked with the points at the junction under Trinity Street Bridge, so that it is impossible for them to be off whilst these points are lying for the Hellifield direction.

There are also the usual signals for the up platform line from Hellifield, and these too are interlocked with the points at the junction, but their precise position is immaterial to this accident.

Blackburn Junction signal cabin is a block box, the next block box to the southwards being Salford line signal cabin, distant 416 yards, and the next block boxes to the northwards being Johnson Street Fork cabin on the Hellifield line, and Bullfield No. 1 cabin on the Fleetwood line, the latter being 691 yards distant from it.

The Company has obtained exemption from block working through Bolton Station, and the following are included in the Company's special rules for Blackburn Junction box:—

The "Train out of section" signal may be given for an up train when the last vehicle of the previous train has passed under Trinity Street Bridge.

The "Is line clear" signal for an up train may be acknowledged and the indicator turned to "Line clear" if the line is clear up to Trinity Street Bridge, or if the junction points are set so as to give a clear road to the approaching train.

In connection with this last rule the following distances from Trinity Street Bridge on the Fleetwood line are noted:—

	Yards.
Trinity Street Bridge to Blackburn Junction up inner home	50
" " " signal cabin ...	110
" " " up outer home	273
" " to Fork Junction between up main	
and up platform lines	200

The line from Bullfield No. 1 cabin to Blackburn Junction cabin is nearly straight and is on a slightly falling gradient of 1 in 400. There are, however, two tunnels and several over-bridges on this portion of the line, and consequently a driver approaching Blackburn Junction box from Bullfield No. 1 box has a very restricted view of his outer home signal. He has however an excellent view of the outer and inner distant signals, which are both situated clear of the tunnels and over-bridges.

Evidence.

George Bayley, passenger guard, Victoria Station, stated: I have been in the service since January, 1890, and after being a summer guard for four seasons, was appointed permanent guard on October 30th, 1899. On Sunday, December 3rd, I came on duty at 6.30 a.m. to work until 10.30 a.m., and was in charge of the 7.10 a.m. slow passenger train, Hellifield to Manchester, taking charge of that train at Blackburn. I came off duty on the 2nd at 7 p.m. My train was composed of engine No. 287, bogie van, bogie third, two ordinary composites, two thirds, half van, three milk trucks, two open carriage trucks, and a covered truck; the last three vehicles being loaded with theatrical luggage and scenery. I was in the half van with six trucks behind me. The train came to a stand at the up platform at Bolton at 9.31 a.m., the rear vehicle standing just above the points beneath Trinity Street Bridge. We had been standing two or three minutes, performing station duty, and I had got out of my brake to go to the milk truck to assist in unloading milk, when I heard a crash, and saw the covered truck leaning over against the platform. This had been caused by the engine of another train running into it. The force of the collision broke the shackle between my van and the milk truck behind it, and forced my train forward about 10 yards. I received no complaints from passengers. Directly after the accident, I walked towards the engine, and saw some passengers getting out, but others remained in the train which was sent forward to Victoria, leaving Bolton at 9.45 a.m. The three rear trucks were to have come off at Bolton, so they were left behind. The train was fitted with automatic vacuum brake working blocks on the wheels of all the vehicles. As far as I could ascertain no one was hurt.

Henry Charnock, engine driver, stated: I have been 28 years in the service, and a booked driver since July, 1893. I was the driver of engine No. 338, working the 7.20 a.m. Fleetwood to Manchester, on Sunday, December 3rd. I signed off the previous day, Saturday, at Fleetwood, at 4.55 p.m. having worked for about five hours. I signed on to work this passenger train at 6.20 a.m. and I expected to sign off about 11 a.m. I knew the road and the signals quite well. After leaving Lostock Junction all signals were off until approaching the distant signal for Bullfield, No. 1, which was at danger. The morning was clear enough for me to see the signals. I whistled for the passenger road. The outer distant signal for Blackburn Junction was, I am quite certain, off when I sighted it, and the home signal for Bullfield, No. 1, was also off. The inner distant for Blackburn Junction was also off, as was also the starting signal for Bullfield, No. 1. These two are on the same post. I am quite satisfied that it was the middle arm of the signals close to the tunnel which I saw off. It was distinctly off and not merely drooping. I applied the vacuum-brake just as we ended the tunnel, but I did not see the outer home signal for Blackburn Junction until we were just passing it. I then noticed it was on. At this time we were going between eight and nine miles an hour. I applied my vacuum-brake at once, reversed my engine, and the fireman opened the sanders, but I was unable to stop the train, and it came into contact with the side of a covered truck which was in rear of the train standing at the platform, and foul of the Junction. When I passed the inner home signal for Blackburn Junction it was

against me. My engine was a good deal damaged and three trucks were knocked off the rails. At the time of the collision my train was, I estimate, going at about three miles an hour. My only explanation of my not being able to bring my train to a standstill is that the rails were very greasy. I did not tell Mr. Crossley, the Station Master, that all the signals for Blackburn Junction were off for us, and if he says I did he is not telling the truth. I admit that Mr. Crossley explained to me the home signal could not possibly be off, because the Hellifield train had been standing on the points, but I cannot suggest why he went out of his way to explain this to me. I went back to the signalman after the accident, and said to him "Was your distant signal off?" He replied "No." I replied to him "Your distant signal was off." He replied that it was impossible for him to get it off. I admit that the home and outer home signals were at danger against my train. I heard the signalman shout as I passed his box, but I had put my brake on and had done all I could. I am aware that Bolton should be treated as a terminal station, and that I should have been running at such a speed as to have been able to stop with my hand-brake only, but I admit that I had forgotten all about this rule. My engine was a four-wheels-coupled bogie tender engine, fitted with automatic vacuum brake working blocks on the four coupled wheels, and on the six tender wheels. The train too was fitted with the vacuum brake. The brake was in first class condition. The reason why I did not see the outer home signal until I was passing under it, was that the tunnel through which I had passed was full of steam. But I knew that it was a difficult signal to see. When we were passing Bullfield No. 1 cabin, my fireman whistled. He did this simply because it is the practice to do so.

Daniel Pass, fireman, stated: I have been in the service 12 years, and a fireman four years. I worked the same turn of duty on the 2nd and 3rd instants as Driver Charnock. On approaching Bolton, on the 3rd, I noticed that the outer distant signal for Blackburn Junction was at danger; of this I am quite sure. I whistled twice as we passed it, and kept a good lookout for the others. I did not see the inner distant signal for Blackburn Junction, which is placed just outside the tunnel, until we were about 20 yards from it. When I did see it, it was right off, and I also noticed that the distant signal on the same bracket for Johnson Street fork was clean off. I knew at the time that the distant signal for Johnson Street fork should not have been off at the same time as our signal, but I have seen this happen before so I therefore did not take any special precautions. I have seen this signal off before when it ought not to have been off, but I have never reported the fact, nor to my knowledge have the drivers whom I was working with at the time. Just as we passed the outer home Blackburn Junction signal in the tunnel, I heard my mate exclaim "They are on." I immediately opened the sanders as he applied the vacuum brake, and reversed his engine. I saw a red flag as we passed the box, and heard some shouting. I am quite sure I saw a red flag, but we had done all we could and came into collision with the other train. I got off my engine after the collision and had a look round the train. I told Mr. Crossley, the Station Master, that I could not say whether the home signal was on or off.

I certainly did not tell him that the home signal was off. The rails were very greasy that morning, which was, I think, the reason of our not being able to stop the train.

George White, passenger guard, stated: I have been in the service of the Company for 33 years, and for 30 years a guard. I signed on duty at 7.10 a.m. on Sunday morning to work until 3.45 p.m. I signed off duty on the 2nd at 5.30 p.m. I was guard in charge of the 7.20 a.m. Fleetwood to Manchester, working the Blackpool portion leaving Blackpool at 7.25 a.m. On leaving Preston, which was the last place where any vehicles were attached or detached, my train consisted of engine No. 838 (Driver Charnock), bogie van, bogie third, bogie composite, and bogie van, ordinary half van third, ordinary composite, and ordinary third. I was travelling in the rear van of the Fleetwood portion which was the fourth vehicle from the engine, with three vehicles behind me. I had 14 milk cans in my van to be unloaded at Bolton, and was engaged in moving these cans towards the door at the time we passed the distant signals for Blackburn Junction. My train was fitted with a vacuum brake working blocks on 60 out of 66 wheels of the train. This brake was in good order. Through being occupied with this work I am unable to say anything as regards the position of the distant or home signals at Blackburn Junction. I should think that the van I was travelling in was just passing the outer home signal in the tunnel when I felt the brake applied and released, and then suddenly put on with full force. Immediately afterwards we came to a sudden stand just as my van was past the cabin. There was no rebound. I was knocked against the partition in my van, but have not been injured. I put the window down and looked out, and I saw the driver running down towards the cabin. He asked me if the distant signal was at danger, and I replied I did not see it. He then said it was off. I got out of my van and went down the train to see what was the matter. I received no complaints from passengers, and they did not appear to be at all alarmed. I estimate that on passing the outer home signal we were travelling at a speed of about eight or nine miles an hour. This was considerably reduced before the collision took place. The vacuum-brake acted all right. The only damage done to my train was to the van next the engine.

Richard Pollitt, signalman at Bullfield No. 1 box, stated: I have been 24 years in the service, and a signalman 21 years, and have been 15 or 16 years at Bullfield No. 1. I came on duty on Sunday, December 3rd, at 6 a.m. to work until 6 p.m. I came off duty on the 2nd at 10 p.m. This box on week-days is an eight-hour box, and a 12-hour box on Sundays. I received "Is line clear" signal for the Fleetwood train at 9.29 a.m., acknowledged it at 9.29, gave "Train entering section" signal to Blackburn Junction box at 9.32, accepted in advance at 9.29, gave "Train out of section" for it at 9.32, and received the same signal for it at 9.49. Just after the signalman at Blackburn Junction had accepted the Fleetwood train, and before I received the "Train entering section" signal, the signalman at Blackburn Junction box asked me on the telephone how his distant signals looked. I looked out at both his inner and outer distant signals and replied that they were both on and were good signals. As the engine passed my box I heard the driver whistle two for the passenger line. I immediately went to the window and looked at the distant signals and saw

that they were both still on. I knew when he whistled twice that he was whistling for the signals for the passenger line, as it is not customary for the driver to whistle if the signals are off, but simply to give a warning whistle before entering the tunnel. My distant, home, and starting signals were, of course, all off. About five or six minutes after the Fleetwood train passed, signalman Kay rung me up on the telephone and said, "How were my signals when that train passed?" and I said, "They were both on and the driver whistled '2' as he was passing me." I was so astonished to hear of the accident that I called to the driver of a Facit goods train, which was just opposite my box, and said that I could not understand it, as the driver whistled twice passing my box, and one of the men on the engine replied, "Yes, I heard him." The last train to pass my box on the up line previous to the Fleetwood train was at 9.11 a.m. The Fleetwood train seemed to pass my box at a pretty high rate of speed, but not faster than they often do, and I thought that the driver had his train in hand. I did not notice that any of the distant signals for Blackburn Junction were drooping on that morning. I did not specially look at the fork distant.

Joseph Kay, signalman on duty at Blackburn Junction box, stated: I have been 23 years in the service, 22 years a signalman, out of which I was a relief signalman for four years. On the 3rd instant I came on duty at Blackburn Junction box, Bolton, at 6 a.m. to work until 6 p.m. This box is an eight-hour box during the week-days, and a 12-hour box on Sundays. I was not on duty on the 2nd at all. I received "Is line clear" signal for the Hellifield train at 9.23 a.m. from the Johnson Street fork box, and acknowledged it at 9.26. I received "Entering section" signal at 9.30, and the train passed my box at 9.31. "Is line clear" signal was acknowledged by box in advance at 9.27, and I gave "Train out of section" signal at 9.31. At 9.27 I lowered my home and distant signals for this train, and did not pull them off till the collision occurred. These signals locked the trailing points for the Blackburn line. I received "Is line clear" signal from Bullfield No. 1 for the Fleetwood train at 9.29, and acknowledged it at 9.29; I received "Train entering section" signal at 9.32, it was accepted under station yard working by box in advance at 9.32, and it ran past my box at 9.33 against all my signals. I did not accept the "Is line clear" signal for the Hellifield train as soon as offered, as, if possible, I wished the Fleetwood train to arrive first, as it is due to do so, and I made enquiries on the telephone from Lostock as to its whereabouts. I received information that it had only just arrived at that station. I therefore accepted the Hellifield train and allowed it to arrive first. The train came to a stand at the platform with the last vehicle just underneath Trinity Street bridge at about 9.31. I accepted the Fleetwood train as the train from Hellifield was approaching, being allowed to do so, as my fork points from the Fleetwood line were set for the main line. After the Hellifield train had come to a stand I reversed these points for the passenger line in preparation for the Fleetwood train to arrive. I did not keep my points set for the main line until the Fleetwood train had come to a stand at my home signal, as I wished to have everything prepared for it to arrive at the platform in case the Blackburn train had been got away quickly, and my regulations allowed me to do this. I was looking towards the tunnel and saw the Fleetwood train emerge. I knew at once that he had

run past my signals, but I had not time to reverse my fork points again for the main line. I had not time to get hold of and exhibit a red flag, so I ran to the window and commenced waving my arms and shouting, but the driver did not apparently see me, and he did not appear to be doing anything. The train appeared to me to be travelling at a speed of at least 30 miles an hour past my box. I was much astonished to see it pass at this speed. He passed my intermediate home at danger at a slightly reduced speed, and I should think when the collision occurred the Fleetwood train was travelling at about 15 miles per hour. The train appeared to slacken speed very rapidly after passing my box. Directly after the accident the driver ran back to my box, arriving there at 9.34, and stated that the signals were all off for him, pointing to the home signal in the tunnel and also to the intermediate home. I said that could not possibly be. He replied again that it was so. I then shouted to chargeman Hindley, who was working underneath my cabin, and asked him to go and see if the outer home signal in the tunnel was off. He went and came back and said that the home signal was fully on. I did not alter the signals since either train passed, and could not have pulled the signals off for the Fleetwood train because the Hellifield train had never cleared the trailing points for the Blackburn line, which lock up my signals from Fleetwood. Whilst chargeman Hindley was away I rang Bullfield No. 1 up and asked the signalman there to tell me what position my distant signals were in when the train passed, and he replied that both my inner and outer distant signals were at danger, and that the driver whistled "2" in passing. The "repeaters" in my cabin showed the signals at danger. I may mention that when I acknowledged the "Is line clear" signal for the Fleetwood train, I happened to notice that the pointer of the "repeater" for the outer slow line distant was quivering, and as, when I notice anything of this kind, I always make it a point to enquire whether there is anything wrong with the signals, I asked Bullfield No. 1 how my distant signals were, and he then said they were all at danger. The rules for working in the Blackburn Junction box allow me to accept a train from Bullfield No. 1 provided the up line is clear as far as the Trinity Street bridge. After the Hellifield train had come to a standstill the line was clear up to this point, so I was justified in accepting the train. I have never received any complaint as to my distant signals at Bullfield drooping.

David Hindley, chargeman, stated: I am a Chargeman in the Signal Department, and it is my duty to look after the signals and oil the cranks and levers in the boxes. I came on duty on Sunday, the 3rd, at 6.0 a.m. to work until 5.30 p.m. At about 9.32 a.m. I was cleaning underneath Blackburn Junction box when I suddenly heard the signalman shout "Stop; stop," apparently to the driver of a train which was running into the station from the Fleetwood direction. I at once went to the door and arrived there just about the time the train came to a stand after the collision. I immediately went back into the tunnel to see how the signals were, and they were all four fully at danger. I came back to the box and told signalman Kay what I had seen.

Mr. Crossley, station master at Bolton Station, stated: I was on the down platform at the time this accident occurred, but I did not notice anything until the collision had happened, and heard of it from one of my staff. I at once came across and spoke to the inspector who was in charge of the up platform, and asked him if he had received any complaints from the passengers. He replied "No." I then went under the bridge, looked along the Fleetwood train, and satisfied myself there was nothing wanted there. I returned and looked at the position of the trucks, and then immediately went to Blackburn Junction box and asked signalman Kay what he had to say about the matter. His reply was "Nothing, beyond that all my signals were at danger, and he has run past them all." He pointed out that the position of the Blackburn train absolutely prevented him from moving his levers, and that his signals were exactly in the same position as when the accident happened. I looked at the intermediate home signal and saw that it was at danger. On returning from the cabin I spoke to driver Charnock, and he told me that all signals were off for him. I replied that it could not possibly be so with the Hellifield train standing as it did. I saw Charnock a second time, and he stated the signals were off. I then said "My man, that could not possibly be with the Blackburn train standing on these points. The pointsman could not possibly do it." Some little time later I saw Charnock a third time, and he then said he had not seen the home signal in the tunnel, but that the distant signal was off for him. I am perfectly clear that this man told me, and meant me to believe, that all signals were off for him, and not the distant signal alone, in the first instance. After being in Blackburn Junction box I made my way through the tunnel to Bullfield and tested the signals. I found that when the up starting signal was lowered the Blackburn Junction distant signal for Johnson Street fork drooped, but that the inner and outer distant signals were good signals at danger, even when the Bullfield No. 1 home and starting signals were off. The inner and outer distant signals for Blackburn Junction are slotted with the Bullfield signals.

Henry Cooke, main line inspector, stated: I was called to the station owing to this accident, and arrived there about twenty minutes to ten. I found that the Fleetwood train had run into the rear of the Hellifield to Manchester train, which was standing at the up platform foul of the trailing points, and it knocked three trucks off the road and slightly damaged the engine of the Fleetwood train. I went down to Blackburn Junction box to see what had happened, and I very shortly afterwards saw the driver and asked him how it had happened. He then said that all the signals were off. I replied, "That could not be so, as the locking would not allow it." He insisted, however, that it was so, and I said, "Well, we will try the signals and locking as soon as we get an opportunity." After the Blackburn train had been taken off the points, I saw the signalman reverse the road and test it. All the signals were found to work right, and the Blackburn Junction tunnel and outer home signals could not be lowered until the trailing points under the bridge were set for the slow line.

Conclusion.

The circumstances under which this collision occurred were as follows: The 7.10 a.m. train from Hellifield arrived at the up platform, Bolton Station, at 9.31 a.m., and came

to a stand with its last vehicle under Trinity Street Bridge, foul of the junction points between the Hellifield and Fleetwood up platform lines.

Signalman Kay, who was in charge of the Blackburn Junction box, states that it was at 9.27 a.m. that he had pulled off his home and distant signals for this train to pass, and he asserts that these signals were still off and the junction points still lying for the Hellifield direction when the collision occurred.

Meanwhile at 9.29 a.m. Bullfield No. 1 offered Kay the 7.20 a.m. Fleetwood train; at this moment the Hellifield train was approaching the station, and Kay was unable to accept a second train on the up platform line, so he set his fork points for the up line from Bullfield No. 1 to lie for the up main line, which was clear, instead of for the up platform line, and he then accepted the train. All his up signals were, however, at danger, as he had not received "Line clear" for this train from the Salford line box. At 9.31 a.m., when the Hellifield train had come to a standstill, he reversed his fork points, so as to admit the Fleetwood train to the up platform line, but still keeping his signals at danger. At 9.32 he received "Train entering section" signal from Bullfield No. 1; he at once offered it to Salford line box, and it was accepted under Station Yard working. This necessitated the train being brought to a standstill at the Blackburn Junction home signals, so Kay still kept his signals at danger for that purpose, and as a matter of fact he was unable to lower them, as the junction points under Trinity Street Bridge were still lying for the Hellifield direction, and were locked in that position by the Hellifield signals.

At 9.33 a.m., however, Kay suddenly saw the Fleetwood train appear in view, and he at once realised that it had run past his signals. He did all he could to attract the driver's attention, and the train slackened speed rapidly after passing him, but not sufficiently to prevent the collision occurring. Kay estimates the speed of the train when passing his box at 30 miles an hour.

Driver Charnock who was driver of the Fleetwood train states that he is positive that when he passed the outer and inner signals for Blackburn Junction box they were both off. He did not see the outer home signal till he was actually passing under it, when he suddenly noticed that it was against him. He states that he was then going at eight or nine miles an hour, and that though he then applied his vacuum brake and made every endeavour to stop his train he was unable to do so owing, he states, to the greasy state of the rails. Charnock allows that he was acquainted with the fact that Bolton is a station which has to be treated as a terminal station, and that he should have been running at such a speed as to have been able to stop his train with his hand brake only, but he admits that he forgot all about this rule.

Fireman Pass, who was on the engine with driver Charnock, states that the Blackburn Junction outer distant signal was against them, but he corroborates his driver as to the inner distant being off.

On the other hand, signalman Pollitt, who was on duty in the Bullfield No. 1 box, and who had a good view of the Blackburn Junction distant signals, states that he is positive that when the Fleetwood train passed them they were both at danger. Just before the time at which the Fleetwood train arrived at Bullfield No. 1 box, Kay had noticed that the repeater of one of his distant signals—though not the one for the line on which the Fleetwood train was coming—was quivering, so he asked Pollitt on the telephone how his distants were. Pollitt accordingly specially looked at them, and saw and told him that both his up distants were on and were good signals.

Apart from Pollitt's evidence, it appears to be most improbable that the distant signals could have been off, as stated by the driver. They could not have been lowered till both the home signals were off; these latter were undoubtedly at danger when the train reached them, and it is practically certain that they must have been in that position since 9.27 a.m., when the signals for the Hellifield train were pulled off, thereby locking the junction points and preventing these home signals for the Fleetwood direction from being lowered. Also, immediately after the occurrence of the accident, the distant signals were examined and were found to be at danger.

There appears therefore to be conclusive evidence that the Blackburn Junction distant signals were at danger when the Fleetwood train passed them, and that driver Charnock omitted to notice this fact, and consequently did not bring his train sufficiently under control to be able to stop it at the home signal.

Irrespective of this fact, Charnock was unable, even with the use of his vacuum brake, to stop his train between the outer home signal, which he did notice to be at danger, and Trinity Street Bridge, a distance of 273 yards. The Company has a distinct rule that trains are to be brought to a standstill at Bolton Station by the use of the hand

brake only. It is therefore clear that either Charnock was approaching the station at far too high a speed, or that he did not take the proper steps to bring his train to a standstill when he saw that the outer home signal was against him.

There can be no doubt that this accident was entirely due to the careless manner in which driver Charnock carried out his duties on this occasion, and the whole responsibility for it must rest on him.

No blame appears to attach to any other of the Company's servants.

The Assistant Secretary,
Railway Department, Board of Trade.

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

APPENDIX.

DAMAGE TO ROLLING STOCK.

Hellifield train.

Covered truck, No. 139.—Axle-boxes and brake work broken.

Carriage truck, No. 8.—Broken up and wheels from under.

Carriage truck, No. 46.—Buffers and buffer castings broken.

Fleetwood train.

Engine, No. 838.—Smoke-box and tender tank damaged.

Bogie van, No. 1,033.—Front bogie displaced.

Damage to Permanent way.

Points bent and 19 yards of platform coping displaced.

Printed copies of the above Report were sent to the Company on the 13th January, 1900.

LONDON AND NORTH-WESTERN RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.,
August 9th, 1899.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with the Order of the 3rd July, the result of my enquiry into the collisions that occurred at about 11 p.m. on the 1st July, at Verdin's siding signal-box near Winsford Junction on the London and North-Western Railway.

In this case a train consisting of a six-wheels-coupled engine, six-wheeled tender, 30 waggons of coal, two empties, and a brake-van, which was travelling on the down loop line between Winsford Junction and Verdin's siding, was, owing to a mistake on the part of the driver, allowed to run through the buffer-stops at the end of the loop, and collided with the abutment of an overbridge a few yards behind the stops. The driver and fireman jumped off their engine shortly before the collision occurred, and these men and the brakesman escaped without injury.

The engine was considerably damaged, and the abutment of the bridge seriously shaken.

The collision caused several of the waggons to leave the rails (the exact number cannot be ascertained, but it was about 14), and some of these fouled the down main line, which is alongside the down loop line.

A down goods train, consisting of a six-wheels-coupled engine, six-wheeled tender, 43 waggons, and a brake-van, which at the moment was passing along the down main line, ran into the coal waggons, which were foul of its track, and was wrecked. The coal waggons and the front portion of the goods train were piled up in a heap, with the engine and tender of the second train on the top of them. The driver and fireman were bruised and shaken, but escaped more serious injury. Thirteen coal waggons and 24 goods waggons were smashed up (two of the former and 13 of the latter being literally broken to pieces), the goods engine was badly damaged, and the two main lines were blocked.

About the same time the signals were off for an up excursion train, consisting of a six-wheels-coupled engine, tender, and 17 carriages, but the signalman in Verdin's siding signal-box, seeing what was about to happen, immediately put all signals to danger. Fortunately the excursion train was still some distance off, and the driver of it found the