

and went across with the branch train to go to the Town.

There was no inspector on the station?—No; Partington relieves me. It is not the only time he has been left in charge of the train; he is a capable man, he understands the working of them thoroughly, and in fact when I am not there he is in charge; he is in charge of the trains late at night.

A *Juryman*: I take it that the station master believed that all the passengers for the branch had alighted?—Yes.

And yet one remained behind?—The train was

thoroughly called; I put three or four men on to call the train up and down on both sides.

That is what we wanted to get at.—The train was thoroughly called, and a large quantity of luggage put in. I had no idea there was another passenger. The porters went up and down the platform, to my knowledge, and called out repeatedly and loudly. We were anxious to get this 5.45 train away, because it was running very late and the excursion could not have proceeded, because the roads were blocked, till this train had left for Fauntou, and that kept her waiting at the platform some minutes longer.

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## APPENDIX.

### DAMAGE TO ROLLING STOCK.

#### 2.45 p.m. Excursion Train.

Third 1,902.—Coach completely wrecked.

Brake Third 2,184.—End and bogie badly damaged; one pair of wheels damaged; headstock bent; screw connection and one buffer broken; also gas cylinders, vacuum cylinders, lights, brake shaft and pull rods broken.

Third 1,789.—One broken quarter light,

#### 1.20 p.m. Train.

Engine 3,710.—Front vacuum pipe broken; step under smoke-box, trailing buffer and leading bogie axle-box damaged; front hand-rail bent; and front end of footplate bent up.

P. B. Van 1,057.—Two badly bent buffer guides and bent iron head-stock.

Corridor First 3,038.—Two broken C.I. buffer guides and one bent buffer rod.

Third 3,616.—Two broken C.I. buffer guides.

P. B. Van 683.—One broken C.I. buffer guide.

Slip 7,697.—Two badly bent buffer rods and damaged end panel.

Third 1,316.—Headstock bent.

Third 1,165.—One drawbar plate bent.

Third 3,269.—Headstock and six quarter lights broken.

Third 3,015.—One buffer guide and three quarter lights broken.

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Copies of the above Report were sent to the Company on the 25th September.

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## LANCASHIRE AND YORKSHIRE RAILWAY.

Railway Department, Board of Trade,  
8, Richmond Terrace, Whitehall, London, S.W.,  
29th August, 1913.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with the Order of the 21st July, the result of my inquiry into the causes of the collision which occurred on the 17th July between two goods trains at Accrington on the Lancashire and Yorkshire Railway.

In this case the 10.20 p.m. down goods train from Rochdale to Fleetwood got out of control after passing Baxenden, and leaving the rails at the south end of Accrington Station collided with the 6.10 p.m. goods train from Chorley to Moston, which was standing at the up fork line intermediate home signal.

The drivers of both trains were badly injured, and the guard of the 10.20 p.m. train was badly shaken.

Both engines were damaged, also 14 waggons were broken up, and 19 damaged.

The 10.20 p.m. train consisted of a Class A six-wheels-coupled goods engine with a six-wheeled tender fitted with the automatic vacuum brake on all wheels of the engine and tender, and with the hand brake on the tender wheels, and of 49 loaded waggons, 3 empty waggons and a 20-ton brake van. The engine was also fitted with sand valves worked by a hand lever, which are stated to have been in good order when the engine left Bury.

The brakes are also stated to have been in very good order.

The weight of the engine and tender in working order is 68 tons 5 cwts. 2 qrs., and the total weight of the train including the brake van was 411 tons 18 cwts. 2 qrs.

The collision occurred at 2.8 a.m. on a dark night with a drizzling rain.

Details of damage to rolling stock and permanent way are given in Appendix II.

## Description.

The down line from beyond Baxenden Station signal-box to Accrington Station runs from south to north and is on a continuous falling gradient.

There is a steep rising gradient from Haslingden up to the summit, and from thence the down gradients are as follows, viz :—

1 in 97 for a length of	...	...	...	...	11 chains.
1 in 104     "     "	...	...	...	...	33     "
1 in 65     "     "	...	...	...	...	10     "
Here is the Notice Board to stop and pin down brakes.					
1 in 76 for a length of	...	...	...	...	5     "
1 in 56     "     "	...	...	...	...	6     "
1 in 47     "     "	...	...	...	...	10     "
1 in 38     "     "	...	...	...	...	49     "
1 in 40     "     "	...	...	...	...	59     "     10 yards.
1 in 39     "     "	...	...	...	...	15     "
1 in 42     "     "	...	...	...	...	7     "

The facing points of the sand drag are near the end of this 7 chain length.

1 in 45 for a length of	...	...	...	...	3 chains.
1 in 68     "     "	...	...	...	...	3     "

Here are the junction points of the fork line which runs to the left of the down platform on a curve to the left, while the down main line through the station curves to the right.

The distance between the various points mentioned in the evidence are as follows :—

From the summit to Baxenden Station signal-box	...	460 yards.
"   Baxenden Station signal-box to Notice Board	...	733     "
"   Notice Board to Baxenden Colliery signal-box	...	133     "
"   Baxenden Colliery signal-box to Shoe Mill signal-box	...     ...     ...     ...     ...	1,120     "
"   Shoe Mill signal-box to points of sand drag	...	2,094     "

Thus the total distance from the Notice Board to the points of the sand drag is 3,347 yards, nearly 2 miles, mostly in a down grade of 1 in 38 and 1 in 40.

The facing points of the down line sand drag, which is 100 yards in length, are worked from Accrington South signal-box, which is situated on the east side of the running lines and sidings near the north end of the drag.

The regulations regarding descending inclines are given in Appendix I.

## Evidence taken on the 30th July.

*John Burton* states : I have been in the Company's service 21 years. I have been a signalman 18 years, and at Baxenden Station box nine years. I came on duty at 6 p.m. on the 16th July for 12 hours, having previously left duty at 6 a.m. on the 16th. It is usually an eight-hour box, but occasionally I work 12 to change rounds. I received the "Is line clear" signal for the 10.20 p.m. Rochdale to Fleetwood goods train at 1.49 a.m. and accepted it at the same time, "Train entering section" signal being sent at 1.55 a.m., and the train passing my box at 2 a.m. The train was accepted by Colliery box at 1.55 a.m. immediately it was offered. The train did not come to a stand at my box and passed at about 15 miles per hour. I do not know whether the guard had his brake on at that time or not. If the engine had stopped at the board the brake-van would have been just in my view, but I have seen trains of this length run forward without stopping, generally travelling slowly and gradually drawing out of my sight. The train was assisted by a bank engine from Helmshore, but it was some two or three waggon lengths in rear of the train when arriving at my box. Engines come to my box to help trains down the bank if the load is too heavy for the engine ; sometimes four or five times a day.

*William Heap* states : I have been in the Company's service 13½ years. I have been a signalman 11 years, at Baxenden Station box about 5½ years, but have been working at Colliery box about two

weeks and have previously worked there for about 2½ years. I commenced duty at 8 p.m. on Wednesday, July 16th, to work until 6 a.m. the following day, having finished duty at 6 a.m. on the 16th. At 1.55 a.m. on July 17th I accepted the 10.20 p.m. Rochdale to Fleetwood goods train on the down main line immediately it was offered, and received the "Train entering section" signal at 2 a.m., the train arriving at 2.4 a.m. and passed at 2.7 a.m. There is a notice board on the down side of the down main line, about 130 yards on the Manchester side of my box, giving instructions that goods trains must be brought to a stand to pin down brakes, and when this train arrived it proceeded slowly as though the driver intended stopping at the board, but this he did not do and passed my down starting signal at 2.7 a.m. without coming to a stand whilst I could see him. Neither the driver, fireman, nor guard called out nor signalled to me in any way as the train passed the box, and I am unable to say why the train was not brought to a stand for brakes to be pinned down, as this train has always done so previously when I have been on duty, and, judging by the load on the train, this should have been done on this occasion. The first intimation I received that anything was wrong was at about 2.10 a.m., one minute after I received the "Train out of section" signal from Shoe Mill box, when the signalman on duty there informed me over the telephone that he thought something was wrong with the train as it passed him quickly and

the driver had called out to him, but he could not make out what he said. When the train passed my box I saw the driver and fireman were on the engine. The train seemed to be under proper control when passing and not travelling at more than three miles per hour. I am quite sure that the train occupied three minutes from the time of arrival at my box to the time it passed the down starting signal although it did not stop at any time. I did not notice whether any brakes were pinned down when the train passed me nor did I see anyone pin any brakes down. I cannot say whether the guard had applied the brake in the van when passing and, so far as I could see, the train was complete, and there was nothing unusual beyond the train not having stopped to pin down brakes. I saw the guard looking out of the van on my side of the box which is fixed on the up side of the line. There was no bank engine in rear nor had one been signalled to me. Although the train did not stop at the board to pin down brakes I did not call out to the driver as I did not think there was anything wrong, nor did I telephone any information to the signalman at Shoe Mill box. I have seen some trains come almost to my box before stopping for brakes to be pinned down, whilst others have drawn past my box and towards the down starting signal before the work was done. Brakes are usually pinned down on the six-foot side, but I did not see the fireman alight. As the train approached me I looked out but did not see anyone pinning down brakes. Some trains are brought to a stand and brakes pinned down before reaching the board, and I thought it possible that the train in question had been dealt with in this way. I could not see whether the guard had his brake on or not. The rails were wet, a drizzling rain prevailing. I did not hear the driver whistle at any time. Sometimes engines come from Accrington to assist trains down the bank.

*John Whalley* states: I have been in the Company's service six years. I have been a signalman two and a half years, and at Shoe Mill box five months. I commenced duty on July 16th at 10 p.m. to work until 8 a.m. on the 17th, having finished duty on the 16th at 8 a.m. The 10.20 p.m. Rochdale to Fleetwood goods train was offered to me at 2 a.m. and I at once accepted it, the "Train entering section" signal being received at 2.6 a.m., and the train passed at 2.9 a.m. I received no intimation from the Colliery box that there was anything wrong, but when the train passed me I heard the driver call out something which I could not distinguish, but as drivers and firemen have often called out to me I did not attach much importance to it at the time. I cannot say definitely where the driver was standing when the engine passed me, but I did not see anyone else on the footplate besides the driver. After the driver had passed I thought the train was travelling a little faster than usual, but not travelling at an excessive speed. I, however, telephoned to the signalman at South Junction box, Accrington, that I thought the train was travelling quicker than usual, and that the driver had called out to me, but I did not hear what he said. The signalman at South Junction box did not reply. About 10 minutes after the train had passed I saw the fireman approaching the box, and in answer to my query as to what he was doing there he said the train had gone away and left him. He did not say why he had been left, and I did not ask him as it did not occur to me to do so, nor did I ask him where he had alighted. I did not see the guard. It was very dark when the train passed my box and I was placing the distant signal to danger as the engine was approaching, but ran to

the door immediately I heard the driver shouting out. I am quite positive the driver was on the engine, as I saw him on the footplate, but did not see anyone else, although there may have been other men on. The train was travelling at from 20 to 25 miles per hour when it passed me. I did not hear the driver whistle during the whole of the time he was approaching my box, nor after he had passed.

*Thomas Parkinson* states: I have been in the Company's service 20 years. I have been a signalman 18 years, and at Accrington South Junction box seven years. I commenced duty on July 16th at 10 p.m. to work until 6 a.m. on the 17th, having finished duty on the 15th at 10 p.m. The 10.20 p.m. Rochdale to Fleetwood goods train was offered to me at 2.6 a.m. and I immediately accepted it, the "Train entering section" signal being received at 2.7 a.m. and it passed me at 2.8 a.m. After receiving the "Train entering section" signal the signalman at Shoe Mill box informed me over the telephone that the driver and guard were shouting out something to him, but he could not tell what was said, and that the train appeared to be travelling more quickly than usual. The train had been accepted by West box at 2.7 a.m. and all signals were lowered and the junction properly set for the down fork line. On receipt of the information from Shoe Mill box I telephoned to West box asking what was the state of the road there, and the signalman there stated he had a goods train approaching. Whilst I was at the telephone and before I had an opportunity of replying I saw the train approaching at a terrific speed. I at once left the telephone, placed all the signals to danger, released the locking bar of the facing points for the sand drag, then set the points for the sand drag and locked them. The train entered the sand drag and ran straight through, but when the engine reached the end of the drag it appeared to jump and leave the rails, running forward and colliding with the engine of the 11 p.m. Preston to Moston goods train, which was standing at No. 44 intermediate home signal for the up fork line. The Moston train had arrived at the signal at 1.49 a.m., and was waiting for a path as I intended to give goods trains on the up main line preference. The Fleetwood goods train usually has work to do at West box. I could not set the junction points for North box as two engines were standing on the down main line there waiting to bank trains going in the direction of Baxenden on the up main line. Even, however, providing I had known there was nothing on the line at North box I should not have reversed the junction points for that direction as, having regard to the terrific speed at which the train was travelling, it would doubtless have been derailed at the curve at North Junction box, and as the line in advance of that box is over viaducts, the result might have been much more serious. I did not receive any other signal from Shoe Mill box after receiving the "Train entering section" signal. After the mishap I sent the "Obstruction danger" signal to North Junction box, and seeing the goods inspector and staff were on the ground in attendance I left the arrangements for calling out the tool van, etc., and attending to the injured men to them, as I am not an ambulance man. I, however, requested the signalman at North Junction box to call out the stationmaster, and understand that he did this, but a goods guard had already been. We have printed instructions in the box to use the sand drag for any train which is travelling too fast down the bank. I am quite positive the signalman at Shoe Mill box informed me the driver and the guard shouted out to him. The driver of the Fleetwood train was not whistling

and, with the exception of the speed of the train, I had no definite indication that it was out of control. After the mishap I saw the guard and asked him, if he was hurt, and he replied "No." I did not ask him any further questions as to how the mishap happened nor if any brakes had been pinned down or the train stopped at Baxenden Colliery box. I should estimate the speed at which the train was travelling on reaching the sand drag at 60 miles per hour, but the sand drag appeared to check the speed, as it was not travelling so quickly when the collision occurred.

*George Kay Mussey* states: I have been in the Company's service 13 years. I have been a signalman 10½ years, having worked at north box about eight months. I commenced duty at 10 p.m. on July 16th to work until 6 a.m. on the 17th, having finished duty on the 16th at 6 a.m. Two engines coupled arrived at my box on the down main line at 2.2 a.m. from south box and stood there in readiness to bank the 12.50 a.m. Colne to Miles Platting goods train, and they remained there until 2.30 a.m. I received the "obstruction danger" signal from south box on the up main line at 2.9 a.m., and was told by the signalman there that there had been an accident, and I was requested to call up the station master, which I did. I also telephoned to Rose Grove instructing them to keep trains back until I received some further information, and I also spoke to the goods inspector at Rose Grove. Goods inspector Oglesby was on the ground at the time and I learned he had arrangements in hand for dealing with the mishap, and knew that some of the enginemen from the two engines standing at my box had left to attend to any injured men.

*J. A. Oglesby* states: I signed on duty at 6 p.m. on July 16th to work until 4 a.m. I have been a goods inspector at Accrington 12 years and am thoroughly acquainted with the whole of the workings. I was standing close to the steps of the south box when I saw the Rochdale to Fleetwood goods train approaching on the down main line at a tremendous speed, apparently at more than 60 miles per hour. I did not hear the driver whistle. I saw the engine enter the sand drag and it appeared to push the troughs out as it was travelling through and leave the rails whilst in the drag. The engine appeared to be being pushed forward by the weight of the train, and after leaving the drag ran forward and collided with the engine of the Preston to Moston goods train which was standing on the up fork line. When the train stopped I immediately went to see if anyone was injured, but before reaching the engine I found the driver of the Fleetwood train lying on the ground between the water column at the end of No. 1 platform and the place where the mishap occurred. I am an ambulance man and at once gave the engine-driver attention, and whilst doing this was told by the fireman of the Moston train that his driver was also injured, and I arranged for that man also to receive attention, and sent for a doctor. I then returned towards the box and examined the waggons which had kept the rails and found that none of the brakes had been pinned down. I asked the guard if any brakes had been pinned down at Baxenden Colliery, and he replied "No," as they did not stop. I saw that the brake-blocks of the brake-van were red hot, but the guard did not tell me that he had applied his brake and I did not question him as to how the mishap occurred. I asked him if he was hurt, and he replied "No," but was shaken. I did not speak to the signalman at South box as there was not an opportunity, the mishap occurring only a few seconds after I saw

the train. I, however, heard him on the telephone speaking to someone about the train. I noticed the waggons were running irregularly when the engine appeared to leave the rails in the sand drag. It was a Class A standard goods engine and travelling chimney first, and the train consisted of 52 waggons and a 20-ton brake-van. The weather was fine until 1.40 a.m., when a drizzling rain commenced to fall. I found the driver of the Fleetwood train lying on the ground about two waggon-lengths from the tender of his engine. The sand drag reduced the speed of the train considerably, but I cannot estimate the speed at which it left the drag and ran forward, owing to the waggons running irregularly, and a number leaving the rails. I did not see the driver of the engine when it passed me, but I saw fire coming from the chimney of the engine when its speed was checked in the drag, and thought this was caused by the driver having reversed. I, however, did not see any sparks or fire from the chimney as the train was approaching. I examined the sand in the drag afterwards and it seemed to be in good condition and was not hard. I did not, however, examine it minutely, to see whether there had been any obstruction in the drag. I did not question the driver nor did he speak to me. He was unconscious.

*John Trippier* states: I have been in the service 9 years. I have been a booked goods-guard 11 months. I signed on duty at Rochdale on July 16th at 9.50 p.m. to work 10 hours. I left duty previously at 10.15 a.m. on the 16th inst. I joined the 10.20 p.m. Rochdale to Fleetwood goods train at Rochdale and travelled along all right to Ramsbottom, when a bank engine was put in rear, and then travelled all right to Baxenden, the bank engine leaving us some distance on the Manchester side of Baxenden signal box. My train consisted of a Class A standard goods engine, 49 loaded waggons, 3 empty waggons and a 20-ton brake, the tonnage according to my calculation being 490 tons. This weight is 20 tons in excess of the classified load for this class of engine down Baxenden bank. I did not receive any tonnage cards although I know I should know the weight of my train, and did not obtain this information, which I estimated on leaving Bury, Lancashire and Yorkshire. I know I should advise the driver of the weight of the train, but did not do this as I had not an opportunity, having intended to give the driver the information at Bury, East Lancashire, where we usually stop to attach traffic, but on arrival at Bury, East Lancashire, the driver received a signal from a goods inspector whom I do not know to go ahead, and this he did. If we had stopped at Bury and picked up any more waggons, I should have wired to Accrington from Bury for an engine to assist my train down the bank. I have worked this train twice a week since January. We did not stop at Baxenden and were travelling at about 5 miles per hour when passing through the station, and were travelling about that speed on reaching the board. The driver, however, did not stop at the board and I thought he was travelling too fast when my van was close to the board. I put the brake hard on after the bank engine had left us and did not release it. When I found that the driver was not stopping at the board, but that the train was almost at a stand, I was in the act of alighting with the intention of pinning down brakes, when I felt the waggons jerk forward, and as the train began to increase in speed I went back to my van. I did not get an opportunity for alighting to pin down brakes as the train started very suddenly after coming almost to a stand, and the train was travelling at about 3 or 4 miles per hour when passing Baxenden Colliery box. After

passing that box the train appeared to get out of control, and when passing Shoe Mill box it was travelling at from 30 to 40 miles per hour. I did not see the fireman on the Manchester side of Colliery box but saw him in the six-foot way on the Manchester side of and near Shoe Mill box. When I concluded that the train was out of control I went to the back of the brake-van and prepared for a collision. In consequence of the mishap my back was injured, and I have been to a doctor, who has stopped me from working. After the mishap I went to look to the driver as soon as I could get out of the van and found that he had been injured. I did not speak to him but heard him asking something about where his mate was. I have definite instructions to inform my drivers of the weight of the train. When the bank engine ceased assisting, my van would be just on the top of the bank from Helmshore and on the Manchester side of Baxenden Colliery box. If the train had come to a stand at the board to pin down brakes my brake-van would have been at the platform, and as we did not stop there I knew the driver had gone past the board. I did not attempt to leave my van, however, until we were near to the board and did not pin any brakes down. As a rule drivers draw about half a train length past the board before coming to a stand for brakes to be pinned down, but I did not come to any arrangement with the driver of the engine for the train not to be stopped at the board. When I felt the couplings of the waggons stretching after the bank engine had left the train I put my brake hard on to assist in stopping the train at the board. I was waiting for the driver to stop before alighting to pin down brakes. The reason I did not immediately alight to pin down brakes when I knew the driver had passed the board was that I did not think the train was running away until it had got up speed. I did call out something to the signalman at Colliery box, but cannot remember now what I said, but I did not speak to the signalman at Shoe Mill box. When passing Baxenden Colliery box I did not think the train was out of control. I did not hear the driver whistle at any time whilst the train was going down the bank. I have never previously worked trains which have not stopped at or in advance of the board for brakes to be pinned down. I have asked for assisting engines down from Baxenden if I thought the load was too heavy.

*Jonas Hudson* states: I am 24 years of age and have been in the Company's service  $7\frac{1}{2}$  years and a fireman 2 $\frac{1}{4}$  years. I signed on duty at 8.30 p.m. on the 16th July to sign off at 8.25 a.m. on the 17th, after working from 10.40 p.m. the night previous to 9.30 a.m. I was firing for driver Simpson banking a train from Bury to Castleton and afterwards working the 10.20 p.m. Rochdale to Fleetwood with "A" class engine No. 366. After leaving Bury our next stop for traffic purposes was Accrington, but we were brought to a stand at Olives Siding and after that had a clear road to Baxenden. On approaching Baxenden the driver shut off steam and applied the vacuum brake to stop at the board to pin down brakes. I also applied the tender brake at about the station. We were travelling from 10 to 15 miles per hour as we usually do. I cannot say whether the guard had his brake on in the van or not. Just as we were passing the board and travelling at walking speed of about four or five miles an hour I dropped off the engine to apply the brakes. It is usual to stop with the engine at the board, but probably due to the heavy train which consisted of 53 waggons and 20-ton brake van the driver over-shot the board.

I did not think anything of this as we were going so slowly, and I did not think he would have any difficulty in stopping. I have, on previous occasions, known a driver run one or two waggon lengths past the board before stopping. I at once began to pin down brakes, but noticing the train instead of coming to a stand began to go faster I simply began dropping the brakes down. I pinned about three down and dropped about nine others when the speed of the train increased so much that I was unable to drop any more. I waited until the van had passed me and then shouted to the guard to see whether he had his brake on or not, and gave him to understand that the train was running away. I cannot say exactly the words I used. I at once followed the train down towards Accrington. When I had pinned about three brakes down I noticed the driver drop off the engine on to the six-foot side, which is the side I was on, and pinned down one or two brakes which I had dropped. He then ran towards the engine. I did not see him get on to the engine, but after the train had gone and he was nowhere about I came to the conclusion that he had got on the engine. When I dropped off the engine the vacuum brake was full on and also the hand brake. Up to leaving the engine I did not see the driver touch the reversing wheels, and I did not hear anything afterwards which would lead me to think that he had reversed the engine and opened the regulator. When I came on duty at Bury I examined the sand-boxes, which were full, and I also worked the sanders and found them in good condition. Since leaving the shed we had banked a train to Castleton but we did not use the sanders then. After leaving Rochdale, however, we did not use the sanders until passing Bury, and we made use of them between there and Ramsbottom, and coming up the bank we were assisted from that place by a saddle tank which I believe was engine 813. From arriving at the top of the bank to my dropping off at the stop board I did not hear the driver whistle at all, but soon after I dropped off and before I saw the driver drop off I heard him give a whistle which I think was a crow. I have frequently worked over this line (but not for seven months) when assisted in the rear by a bank engine, and I think it has been left to the bank engine driver to judge when he has pushed the train far enough. When the driver told me to drop off I thought the train would have stopped. The driver appeared perfectly cool and did not seem to be anticipating any trouble in stopping at all. I have never before got off an engine to pin down brakes when a train is moving; and not for seven months when at a stand, as I have been on passenger duty. I went down after the train and walked straight to the engine and got on the footplate. I found the damper shut although it had been open when I left the engine. I also noticed the tender hand-brake was partially on, but I could easily unscrew it, and it was not as fast as I had put it at the top of the bank, and evidently someone else had been on the engine. The vacuum brake handle was in the "On" position, but when looking at the steam gauge I noticed there was no vacuum in either the train or chamber pipe. I then went to look for my mate and I met two Accrington firemen looking for me. I spoke to them and asked them about my mate and they said he was all right and was in the shunter's cabin. I saw him in the cabin; he was unconscious and was being attended to by ambulance men. I then proceeded to the engine and began to throw the fire out. So far as I know the brake was in good condition. I had not handled the engine at all since leaving the shed, but my driver did not

make any complaints and did not seem to have any difficulty in stopping at any time, but when I applied the hand-brake on coming over the top of the bank the driver had not at that time applied his vacuum brake. As I was walking down the bank past Shoe Mill cabin I called to the pointsman and said I was on foot; he asked me why and said "Has he left you?", and he evidently did not know that the train had run away. I asked him whether my driver said anything as the train passed him and also whether he was on the engine, and the pointsman said he was on the engine and had shouted something but he could not tell me what it was. The sbunter who picked my driver up said they found him in the six-foot way on the Colne line near the platform and I found his cap there. I did not notice whether the guard had brakes on the brake-van when it passed me on the bank, but the guard told me that he had the brake on. I was walking alongside the train on the six-foot side pinning down brakes, and was engaged in that work when I passed Baxenden Colliery box.

I was not on the footplate when we passed Colliery box. I am quite certain I dropped off the engine on the Manchester side of Colliery box. It was dark at the time. We were travelling chimney first, but I saw the board from my side of the footplate and alighted when we reached it. The train was gaining speed on passing Colliery box but would only be travelling at about six miles per hour. I was pinning down brakes until the train was about half way between Colliery and Shoe Mill boxes, when it commenced to travel too quickly for me to pin down any more. I am not certain whether or not I alighted from the engine on the Manchester or the Accrington side of Baxenden Colliery box, and we went further down than usual before I alighted to pin down brakes. The rails were greasy at the time, there being a drizzling rain. We did not stop at Bury, East Lancashire, as an inspector gave the driver a signal to go forward. I do not know whether my driver received any instructions to depart from that station from the guard.

#### *Evidence taken on the 27th August.*

*W. J. Simpson* states: I am 42 years of age; entered service June 27th, 1890; booked fireman December 14th, 1894; booked driver March 5th, 1908. I signed on duty on July 16th at 8.30 p.m. at Bury shed. On the 15th instant I signed on at 10.40 p.m. and off at 9.30 a.m. on the 16th. I was in charge of "A" Class engine No. 366/30, and after assisting a goods train from Bury to Castleton, ran light to Rochdale, and worked the 10.20 p.m. Rochdale to Fleetwood goods train. We had a light train from Rochdale and attached a few waggons at Castleton. We stopped at Bury, Lancashire and Yorkshire, to attach, and, after leaving there, should have stopped at Tottington Junction for traffic purposes, but when passing through Bury, East Lancashire, the inspector there gave me a signal to go right away, with a green light. I thought I had a full train on but not in excess of 470 tons. We were slackened by signals at Olives Sidings for 10 minutes, and afterwards had a clear road. On arrival at Ramsbottom a bank engine was put in the rear to assist me to Baxenden, but this engine had left the train before we came to the "Stop" board. I was not informed of the load of my train at Bury; Lancashire and Yorkshire, as the guard usually gives me this information after we have attached at Tottington Junction, but, as mentioned, we did not stop there on this date. Judging from what I could see of the train, I came to the conclusion that we had about 50 waggons on. We had a clear road through Baxenden. I passed the station box at 10 to 15 miles an hour, and all signals were off at Baxenden Colliery. When approaching the "Stop" board, I brought my train close to a speed of four or five miles an hour, and then allowed it to run past for a distance of about 60 or 80 yards at a speed of about three or four miles per hour. I wanted to get my train on the bank before finally stopping to pin down brakes, so as to avoid any risk of breaking loose when re-starting after the brakes had been pinned down. I have been working over this portion of the line for some considerable time, and this is the course I usually follow. After we had got about 80 yards past the "Stop" board my fireman put the hand

brake hard on, and then took the brake stick, and got off the engine to pin down the waggon brakes. We had not travelled very much farther before the engine seemed to jerk forward as if we had broken loose, and I immediately applied the vacuum brake and opened the sanders, but they did not check the engine as the engine wheels were skidding. I released the brake and immediately applied it to see if I could stop the engine from skidding, but it had no effect, so I dropped off the engine to assist my fireman to pin down brakes, but the train continued to gain speed, and I tried to rejoin my engine, but the train was going as fast as I could run, so I then got on to one of the waggons and climbed over several of them, as I thought if I could regain my engine by the time the train was turned into the sand drag, I could check the speed by reversing the engine and giving her steam. I did not, however, succeed in regaining my engine, and I was thrown off the waggon on which I was riding when the collision occurred. After getting on the waggons, I think I climbed over three or four of them, and I should be on the fourth or fifth waggon from the engine when the collision occurred. Before getting off my engine at the top of the bank I had sounded the engine whistle, and I think my guard would have his brake on. There was nothing extraordinary in the speed of the train when we came over the top of the bank. We should be travelling at about four or five miles per hour, and I was surprised when the train began to gain speed like it did. I took what I considered to be the best means to bring the train to a stand. I shouted to the signalman at Shoe Mill Cabin to have the train turned through the sand drag. I have been informed that the engine left the rails at the sand drag, and I should say that was correct, as the engine seemed to jump a lot when running through. I do not remember anything after I was thrown from the waggon. The engine brakes and sanders were in good working order when I left Bury shed. I had no trouble in controlling my train when coming down Broadfield bank prior to arriving at Bury. I had 21 to 22 inches vacuum.

#### *Conclusion.*

The circumstances attending this collision are clearly stated in the evidence.

Driver Simpson was driving the 10.20 p.m. Rochdale to Fleetwood goods train, and left the former place with only a few waggons. A few more were attached at Castleton,

and the full train load was completed at Bury (Lancashire and Yorkshire). Simpson states that as a rule this train is stopped at Bury (East Lancashire), a little further on, for traffic purposes, but on the night in question when passing through Bury (East Lancashire) Station the inspector on the platform gave him a signal to go right away. Simpson had not been notified by the guard of the number of waggons in his train or of their total weight, but, though he thought he had a full load, he did not think it exceeded 470 tons in weight, which is the maximum load allowed for Class A goods engines between Baxenden and Accrington.

Simpson states that, except for being stopped by signals at Olives Sidings for 10 minutes, he had a clear road. On arrival at Ramsbottom, a bank engine came on in rear of his train to assist it up to Baxenden, and this engine left them at Baxenden Station signal-box. He states that he passed through Baxenden at a speed of about 10 or 15 miles an hour, and when approaching the stop board, which is 733 yards ahead of Baxenden Station signal-box, he brought the speed of his train down to four or five miles an hour; but instead of bringing the train to a stand at the board, he intended to allow it to run past that point for a distance of 60 or 80 yards and get the whole train on to the steeper gradient before stopping it, so as to avoid the risk of breaking a coupling or draw-bar when re-starting, after the brakes had been pinned down, and this, he states, has been his usual custom. After he had got about 80 yards past the stop board, he says that he told his fireman to put the hand-brake hard on and then get off the engine and pin down the waggon brakes. Almost immediately afterwards the engine appeared to jerk forward, and he at once applied the vacuum-brake and opened the sanders; but the engine wheels picked up and skidded. He then released the brake and immediately applied it again to see if this would stop the wheels from skidding, but it had no effect, so he then dropped off the engine himself to assist his fireman to pin down the brakes; but the train continued to gain speed. He says he pinned down three or four brakes, and then tried to regain his engine, but the train was by that time going as fast as he could run, so he climbed on to the ninth or tenth waggon, and tried to regain his engine by climbing over the waggons. He thinks he climbed over three or four, and was still on the fourth or fifth waggon from the engine when the collision occurred, and he was thrown off on to the line.

Fireman J. Hudson corroborates driver Simpson's evidence, but is not certain whether he got off the engine on the Manchester or the Accrington side of Baxenden Colliery signal-box, this box being 133 yards ahead of the notice board. He says he pinned down about three brakes and then, as the speed of the train was increasing, he simply began dropping the levers without pinning them down, and he thinks he dropped about nine, when the speed of the train prevented him from doing any more. He then walked after the train and spoke to the signalman at Shoe Mill cabin.

The guard of the train (J. Trippier) states that the train was travelling at about five miles an hour when it passed through Baxenden Station, and at about the same speed when it reached the stop board. He was intending to alight in order to pin down brakes on the rear waggons, when he felt the waggons jerk forward, and as the speed of the train increased he could not get off, so he stayed in his van. He states that the banking engine ceased assisting the train just at the top of the bank, which is 460 yards before reaching Baxenden signal-box, or nearly 1,200 yards from the stop board. He states that he put his hand brake hard on just after the banking engine left the train.

The signalman at Baxenden Colliery box (Wm. Heap) states that the train did not stop at the board, and passed his box slowly; he also says that he could see both the driver and the fireman on the engine, so evidently the fireman had not then got off to pin down brakes.

The signalman at Shoe Mill box (J. Whalley) states that when the train passed him he heard the driver call out something, but he could not distinguish what he said and he did not attach much importance to it at the time. He thought the train was travelling a little faster than usual, but not at an excessive speed. He telephoned, however, to the signalman at Accrington South box and told him that the train was travelling quicker than usual, and that the driver had called out to him. He says it was about 10 minutes after the train had passed him that the fireman came to his box. He thinks the train was travelling at about 25 miles an hour when it passed him.

T. Parkinson, the signalman at Accrington South box, received the message from Whalley at Shoe Mill, and while at the telephone he saw the train approaching at a very high speed. He at once placed all signals to danger and set the facing points on the down line for the sand drag. He thinks the speed was quite 60 miles an hour, and the train ran right through the sand drag, after which the engine appeared to jump and leave

the rails, running forward and colliding with the engine of the 11 p.m. Preston to Moston goods train, which was standing at the up fork intermediate home signal.

There is a discrepancy in this evidence, as to where Hudson alighted to pin down brakes, but I think it is clear that he did not attempt to alight until the engine was well past Baxenden Colliery signal-box, and the signal-box is 133 yards beyond the notice board where goods trains should stop to pin down brakes. This board is clearly marked by a red light at night, and there is no difficulty in seeing it. The guard Trippier says he saw Hudson in the six-foot way when he was near Shoe Mill box, and this box is 1,120 yards from Baxenden Colliery box. Probably Hudson waited for the train to stop before alighting, and as the driver could not do this, the attempt to pin down brakes was made altogether too late, as the train was by that time on a very steep gradient.

Driver Simpson is under the impression that the sanders on his engine could not have been working well when he lost control of his train, but he says they were in good order when he left Bury shed, and on examination after the collision the left-hand sander was found to be in good order, but the right-hand sand pipe had been knocked away and the sand box was empty.

The runaway and subsequent collision were thus, I consider, due to driver Simpson allowing his train to run past the stop board before he tried to bring it to a stand, and then no attempt was made to pin down any waggon brakes until the whole train was on a very steep gradient. The position of this board has been fixed by the Company after experiment, and it is running risks to take a heavy train past this point especially when the rails are greasy, as they were on the night in question owing to a drizzling rain having commenced to fall. When the whole train is brought on to the steep gradient, exceeding 1 in 76, there is danger of the engine being overpowered, as it was on this occasion.

Driver Simpson is a man with a very good record, and has been accustomed to work trains over this section of the line. He had been on duty five and a half hours at the time of the accident.

In view of a very long and steep gradient beyond the notice board and the sharp curves at Accrington Station, I think it would be a great addition to safety generally, if a banksman were stationed at the notice board to assist in pinning down the brakes during the hours of the night when most of the goods trains run, as, should a driver have trouble in stopping, a runaway might be averted by the brakes being put down at once. It is a difficult job for a fireman unaccustomed to such work to use a brake stick and pin down brakes on a dark night; and as it is dangerous to use the brake stick in the six-foot way if a train is passing on the other line, it is well to have a slightly raised pathway on the other side for the brakesman to move along when at work.

It will be noticed that the engine ran right through the sand drag, and left the rails at or near the end of it. This drag is only 100 yards in length, some connections just south of it making its extension impossible, and beyond the connections is a viaduct. It has proved efficient on several previous occasions, when the speed of the train has not been so high as it was on this occasion, but the drags are all 200 yards or more in length at other places on the line.

Perhaps it could be arranged to have a longer drag further back from Accrington Station.

It will be seen from the evidence that guard Trippier did not inform driver Simpson of the tonnage of the train when leaving Bury (L. & Y.), intending to do this at Bury (E. L.), where the train usually stops for traffic purposes, but on this occasion it was not required to do so. By his rough calculations, guard Trippier made the tonnage about 490, or 20 tons more than the maximum allowed for an "A" class engine to take down the Baxenden Bank without assistance; and if the train had stopped at Bury (E. L.) he would have asked for an assisting engine to join the train at Baxenden. As a matter of fact, the total tonnage of the train was 412 tons which was well below the maximum load, but the mishap shows the importance of the Rule being carried out, viz.: for the guard to inform the driver of the tonnage of their train on leaving a starting point or any station or siding where the load has been altered.

This accident illustrated the advantage of a system of Train Control in case of an accident where the line is suddenly obstructed at any point, as trains can be quickly diverted or broken up, instead of having to stand idly behind one another until the line is cleared.

At Accrington all lines were blocked, both those through the station in the direction of Burnley and also the fork lines leading towards Blackburn. The accident occurred at about 2.8 a.m., and at 2.15 a.m. the Controllers at Manchester were in receipt of full information and took immediate steps to divert the traffic.



Twelve goods trains were either diverted or broken up that would normally have passed through Accrington in the early hours of the morning, and arrangements were made to work a shuttle service for passenger trains between Ramsbottom and Accrington Bay Siding, the Controllers demanding the engine and carriages for the purpose. Telegrams were sent to the principal stations advising them of delay to trains and to inform passengers, but owing to the diversion of the trains the delay to the passenger service was not serious, down trains arriving at Accrington about 21 minutes late, and up trains 25 minutes late.

I have, &c.,

E. DRUITT,  
*Lieut.-Col.*

The Assistant Secretary,  
Railway Department, Board of Trade.

## APPENDIX 1.

### DESCENDING INCLINES.

Engine drivers and guards of cattle, goods, mineral, and coal trains must have their trains well under control when descending inclines, and when necessary, before entering upon inclines, must stop and pin down a sufficient number of waggon brakes. Care must be taken that the brake levers are not fastened down so tight as to prevent the wheels from revolving.

A point indicated by a conspicuous notice board, lettered "Goods trains stop to pin down brakes," is fixed near the commencement of steep inclines (1 in 65 or steeper) where all goods and mineral trains must be brought to a stand.

Before starting again the fireman must pin down tightly a few waggon brakes nearest the engine. The train must then be drawn slowly on to the falling gradient, and while this is being done the guard must continue putting down brakes until the whole of the vehicles are on the incline. On reaching the bottom, the fireman must lift the brakes in the front portion, and the guard those in the rear portion of the train.

The engine driver must always steam to pull the whole of the train on to the incline, in order to be thoroughly satisfied that a sufficient number of waggon brakes have been applied, when he must give two short, sharp whistles, to indicate that sufficient brake power is in operation.

The engine and van brakes must in all cases be off when the train commences to descend the incline, so that they may be held in reserve, and ready for use when required to steady the train down the incline, or to stop it if necessary at any point.

The guard must closely watch the train while descending the incline, and must, if necessary, assist the driver by every means to keep the train under proper control.

In the case of a train starting on, or picking up waggons from, a siding on a steep gradient, the fireman must, before starting the train, put down sufficient waggon brakes to necessitate the driver using steam to start, and as the train is slowly moving, the guard must continue to put down more waggon brakes, until the driver intimates by two short, sharp whistles that a sufficient number has been put down to require his engine to use steam down the gradient, the engine and van brakes being off and in reserve, as before directed.

Gradient.	Distance	Gradient.
	Miles.	
From Baxenden towards Accrington	2	1 in 40

## APPENDIX No. 11.

### DAMAGE TO ROLLING STOCK AND PERMANENT WAY.

#### *Rolling Stock.*

Engine No. 366.—Brake hangers and rods broken and bent; R.H. driving spring and R.H. footstep broken; water connections between engine and tender broken; tender brake hangers and rods broken and bent; R.H. middle spring broken; both leading axle boxes broken; water pickup broken.

Engine No. 900.—Leading buffer plank bent back  $3\frac{1}{2}$  inches at the right side; whistle pillar broken inside cab.

Midland, waggon No. 114420.—Two solebars, two headstocks, two middlebearers, five diagonals, four longitudinals, two stretchers, ten end planks, fifteen short side planks, ten short side door planks, four axleguards, two grease axleboxes, and one brakeguard broken; brakework bent; and two pair of wheels cut.

Furness, waggon No. 2185.—Two solebars, two headstocks, two middlebearers, four longitudinals,

four diagonals, two side planks, two end planks, four end muntins, four axleguards, four axleboxes, &c. broken, and two pairs of wheels cut.

Furness, waggon No. 3560.—Two solebars, two headstocks, two side rails, two side planks, two middlebearers, twelve bottom planks, four end muntins, &c. broken, and two pairs of wheels cut.

Threlkeld Granite Company's waggon No. 261.—Two solebars, two headstocks, two middlebearers, four longitudinals, four diagonals, eight end planks, four end muntins, &c. broken, and two pairs of wheels cut.

Lancashire and Yorkshire, covered goods No. 11786.—Two solebars, two headstocks, two middlebearers, four end muntins, forty-eight outside and inside end boards, folding door boards, corner pillars, and brakework &c. broken.

Lancashire and Yorkshire, covered goods No. 13278.—Two solebars, two headstocks, two middlebearers, two diagonals, end boards, brakework, &c. broken.

Lancashire and Yorkshire, covered goods No. 14554.—Two solebars, two headstocks, two middlebearers, two diagonals, end boards, axleboxes, &c. broken.

Lancashire and Yorkshire, covered goods No. 26451.—One buffer casting broken; two buffer rods, and one "V" hanger bent.

Lancashire and Yorkshire, waggon, No. 7602.—Two solebars, two headstocks, two diagonals, two side planks, two end planks, two side rails, two axleboxes, brakework, &c. broken, and two pairs of wheels cut.

Lancashire and Yorkshire, waggon No. 14991.—Two solebars, two headstocks, four end muntins, six end planks, eight side planks, four axleguards, and two axleboxes, &c. broken.

Lancashire and Yorkshire, waggon No. 30165.—Two headstocks, four end muntins, three end planks, axleguards, &c. broken.

Lancashire and Yorkshire, waggon No. 13389.—Two solebars, two headstocks, two middlebearers, four diagonals, side and end planks, &c. broken.

Lancashire and Yorkshire, waggon No. 32216.—Two solebars, two headstocks, two middlebearers, two side rails, four axleboxes, &c. broken.

Lancashire and Yorkshire, waggon No. 13467.—Two solebars, two headstocks, two middlebearers, four longitudinal, twenty side planks, ten door planks, four axleboxes, &c. broken.

Lancashire and Yorkshire, waggon No. 34708.—

Two headstocks, two diagonals, five end door planks, two axleboxes, &c. broken.

Lancashire and Yorkshire, waggon No. 1645.—Two solebars, two headstocks, two diagonals, two side planks, two end planks, two axleboxes, &c. broken.

Lancashire and Yorkshire, wagon No. 13920.—One middlebearer, one side plank, and one end plank broken; one drawbar, one brakeguard, and one tie rod bent.

Lancashire and Yorkshire, waggon No. 24097.—One headstock, one end muntin, and one end plank broken; two buffer rods, &c. bent.

Lancashire and Yorkshire, waggon No. 2046.—Two headstocks, two solebars, two middlebearers, fourteen bottom planks, four axleboxes, &c. broken.

Lancashire and Yorkshire covered goods Nos. 3599, 23673, 6688, 6027, 24741 and 3629. Waggons Nos. 2701, 20673, 5274, 20606, 12082, 9895, 17438 and 17792 broken up.

#### *Permanent Way.*

52 crossing timbers, 42 sleepers damaged; 92 8 inch chairs, 36 6 inch chairs, 62 P. & C. chairs broken; 5 30 ft. steel rails, 2 29 ft. 8 ins. steel rails, 6 27 ft. steel rails, 1 24 ft. steel rail, 2 acute crossings, 2½ sets 15 ft. switches, damaged; 19 steel rails bent; 2 dummy levers broken.

Copies of the above Report were sent to the Company on the 10th October.

## LONDON AND NORTH WESTERN RAILWAY.

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

SIR,

3rd September, 1913.

I HAVE the honour to report for the information of the Board of Trade, in compliance with the Order of the 28th August, the result of my inquiry into the causes of the collision which occurred on the 27th August between a passenger train and a goods train at Stalybridge on the London and North Western Railway.

In this case the 11.45 a.m. passenger train from Leeds to Mlandudno when entering the tunnel approaching Stalybridge No. 4 signal-box, collided with the brake-van of a goods train travelling on the same road. The brake-van and three waggons of the goods train were broken up and the rear pair of wheels of the leading bogie of the engine were derailed.

The guard of the goods train, the driver and guard\* of the passenger train, and one passenger were injured. The passenger train consisted of a four-wheels-coupled bogie passenger engine with a six-wheeled tender fitted with the automatic vacuum brake on the four coupled wheels of the engine and six tender wheels, and of five coaches fitted with the automatic vacuum brake.

The goods train consisted of an eight-wheels-coupled coal engine, with a six-wheeled tender fitted with a steam brake, and of 49 waggons and a 20-ton goods brake-van.

The brakes of the passenger train are stated to have been in very good order.

Details of damage to rolling stock are given in the Appendix.

#### *Description.*

Approaching Stalybridge from Staley and Millbrook the up line runs generally east to west and is on a steep falling gradient, and for the last quarter of a mile it is 1 in 88.

The up home signals for Stalybridge No. 4 signal-box are 66 yards east of the box

\* Guard T. P. Holding of the passenger train died subsequently, the verdict at the inquest on the 19th September being that death was due to apoplexy, Bright's disease, and heart disease, accelerated by injuries and shock caused in the collision.