

The
VIRTUAL MUSEUM
of the
LANCASHIRE & YORKSHIRE RAILWAY

Accident Reports.

24 October 1901

BoT Report into Accident at
Bowling Tunnel.

(6 Pages).

passenger train, whereby there were two vehicles at the rear not fitted with the continuous brake, appears to be contrary to the Orders of the Board of Trade, made under the Regulation of Railways Act, 1889.

The Assistant Secretary,
Railway Department, Board of Trade.

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

APPENDIX.

DAMAGE TO ROLLING STOCK.

Great Northern first-class, No. 2,413.—Derailed, 3 pairs of wheels; 1 axle bent; axle box, axle guard, corner pillar, 5 end and 1 side panels, bottom side rail, vacuum pipe, step-iron, 2 step-boards and 1 ascending step broken; 8 step-irons damaged; 2 drawbars and 2 buffers bent.

Great Northern composite, No. 1,850.—Derailed, 4 pairs of wheels; bottom side rail, end bottom rail, corner pillar and 3 step-boards broken; 2 drawbars, 4 buffers, 1 axle guard and 10 step-irons bent.

Great Northern third-class brake, No. 719.—Derailed, 4 pairs of wheels; bottom side rail and moulding damaged; side panel, 3 step-boards, 1 axle box and axle guard broken; 8 step-irons and 2 drawbars bent.

Great Northern third-class, No. 2,217.—2 drawbars and 2 side chains broken; 2 buffers and brakework bent.

Lancashire and Yorkshire open goods waggon, No. 7,212.—Derailed, 1 pair of wheels; 1 headstock and buffer packing broken; 3 buffers bent; 2 end boards broken; 2 end pillars cut and 1 headstock split.

Lancashire and Yorkshire covered goods waggon, No. 26,436.—2 end boards broken; 2 end pillars cut and 1 headstock split.

Great Northern open goods waggon, No. 13,873.—Derailed, 2 pairs of wheels; 4 end boards, 2 end pillars, and 1 door stop broken, and 2 axle guards bent.

Great Northern refrigerator van, No. 38,378.—Derailed, 2 pairs of wheels; 2 end pillars, step-iron, 4 step-boards and side chain broken; 2 end

pillars grazed; 3 hand rails, 4 step-irons and 1 buffer bent.

Great Northern refrigerator van, No. 30,134.—Slightly damaged.

Great Northern engine, No. 821.—Leading buffer beam and front plate broken; all bolts broken; back plate bent; leading buffers bent and springs damaged; engine outside frame and foot plate bent right side; outside frame bulged left back corner; both foot steps bent right side; right side and front automatic pipes broken; flap plate hinge broken; front lamp irons bent; condense shaft bent; condense elbow casting broken and valve spindle bent; condense pipe sprung, under engine; both leading brake hangers bent; leading brake cross-stay and coupling rods bent; right back guard-iron bent and back buffer-beam cap torn off.

Damage to Permanent Way.

1 check rail broken; 2 12-foot switch tongues bent; 9 switch chairs broken; 10 intermediate chairs broken.

Damage to Signal and Point Connections.

2 4-foot rods broken; 1 4-foot rod bent; 4 lock rods broken; 3 lock rod castings broken; 5 cranks broken; 4 single roller boxes broken; 1 rocking shaft bent; 1 21-foot lock-bar bent; 3 15-foot lengths point rod broken; 6 15-foot lengths point rod bent; about 600 feet run trunking more or less broken up.

Printed copies of the above Report were sent to the Company on the 25th February, 1902.

LANCASHIRE AND YORKSHIRE RAILWAY.

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

November 16th, 1901.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with your Order of the 1st November, the result of my enquiry into the causes of the two collisions which occurred on the 24th October, in Bowling Tunnel near Bradford, on the Lancashire and Yorkshire Railway.

In this case, as the 6.10 p.m. down goods train from Low Moor to Leeds, consisting of engine, 29 waggons, and a brake van, was passing through Bowling Tunnel, the rear 16 waggons and brake van broke loose, and remaining in the tunnel were run into from behind by the 9.5 p.m. down goods train from Low Moor to Laisterdyke, consisting of engine, 4 waggons, and brake van, which was following on the same line.

This collision caused two of the waggons of the 6.10 p.m. train to foul the up line, over which the 9 p.m. passenger train from Leeds to Manchester was just about to pass,

with the result that the engine and some of the carriages of this train were damaged. The passenger train consisted of 10-wheeled passenger engine with 6-wheeled tender, and six bogie carriages fitted with the usual automatic vacuum brakes.

The shock to the passenger train was slight, and no one complained of injury.

The guard of the 6.10 p.m. goods train was shaken by the first collision. Both collisions occurred at about 9.20 p.m.

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

Description.

The lines through Bowling Tunnel, which is 1,648 yards in length, run from south to north, the down line being on the west of the up line. The passage of trains through the tunnel is controlled from two signal-boxes, viz., Low Moor, No. 4, situated about 400 yards to the south of that end, and Bowling Junction, 172 yards to the north of the north end, just alongside the down line.

The down starting signal for Low Moor, No. 4, is 220 yards north of that box and 180 yards from the mouth of the tunnel. The down distant signals for Bowling Junction are about 25 yards from the south end of the tunnel, and there is also a disc distant signal in the tunnel for the down line about 420 yards from the north end.

The down home signals for Bowling Junction box are 116 yards beyond the north end of the tunnel and, therefore, 56 yards south of the box, exactly opposite which are the points of the double junction with the Great Northern line to Leeds, the Lancashire and Yorkshire line going on to Bradford.

The down starting signal for Bowling Junction box on the Great Northern line is 451 yards past the junction and box, and Hall Lane signal-box, the next in advance on that line, is 1,033 yards from Bowling Junction box.

The gradient through the tunnel is 1 in 424, falling from south to north.

The point of collision was 640 yards inside the tunnel from the south end.

Evidence.

Joshua Parkinson, signalman, states: I am 58 years of age. I have been 43 years in the service—29 years a signalman, and have been 23 years at Bowling Junction. I came on duty at 2 p.m. on the 24th inst. for eight hours. On the previous day I worked from 6 a.m. to 2 p.m. I received the "Is line clear" for the 6.10 p.m. down goods train, Low Moor to Leeds, at 9.8 from Low Moor No. 4, which I acknowledged, and "Train entering section" signal was given at the same time. The train passed at 9.16. As the train was passing me the signalman at Low Moor No. 4 called up on the telephone and asked if he was clear, and I replied "He is passing now," and turned round to the frame. The cutting was full of smoke, and I thought I saw the shadow of the tail light. I gave "Train out of section" at 9.16, and immediately afterwards "Is line clear" for the 9.5 p.m. down goods, Low Moor to Laisterdyke, was offered to me, which I accepted, and received "Train entering section" at the same time. About 9.26, the signalman at Hall Lane box, Great Northern line, the next box in advance, called me up on the telephone and said that only a part of the goods train had arrived. I replied "He must have left the remainder in the tunnel." I at once asked the signalman at Low Moor No. 4 if anyone had come out of the tunnel at that end and he said "No." He afterwards called me up and told me the driver of the 9 p.m. passenger train, Leeds to Manchester, had reported that he had struck something in the tunnel. About 9.35, the fireman of the Laisterdyke goods came to me and said they had collided with something in the tunnel, but could not say what it was, and could not say if the up road was blocked or clear. The guard of the first goods train followed and informed me the Laisterdyke goods train had run into his train; one waggon was smashed up and some bar iron had gone through the end of his van, and he did not know

whether the up line was blocked or not. He said he was badly shaken. I at once telephoned to Low Moor engine shed that there had been a collision in the tunnel, and to send the breakdown gang on the up road. The driver of the second goods train came out next, and he told me the up line was blocked and that a waggon was broken up. I received "Is line clear" for the 9 p.m. passenger train from Leeds to Manchester at 9.13 from Hall Lane signal-box. I acknowledged it at the same time and received "Train entering section" at 9.17, and the train passed me at 9.18. I omitted to give "Obstruction danger" signal in either direction. I was very much upset and forgot to do so.

Francis Cody, acting driver, states: I have been in the service 18 years, and have been a booked fireman nearly 12 years, and spare driver for 2 years before that. I was working the 6.10 p.m. goods, Low Moor to Leeds, on the 24th inst. We left Low Moor at about 9.10 p.m. with 29 waggons and brake van. The distant signal for Bowling Junction at the Low Moor end of the tunnel was at danger when I entered the tunnel, and when I saw the other distant in the tunnel it was off. I was running without steam at about 12 miles an hour when I sighted the distant in the tunnel, but on seeing it off I gave the engine steam cautiously, and passed Bowling Junction box at about 20 miles an hour. After passing Bowling Junction I asked my mate to look round and see if the whole of the train was following, and he said he thought it was; but I looked back and could not see the lights of the brake. I looked back several times. There was too much smoke hanging about the tunnel to see if the brake van was following until after I had crossed the junction to the Great Northern line. I was just passing Bowling Junction advance signal when I saw the brake was not following. I

then gradually brought my train to a stand, eventually stopping between Bowling Junction advance signal and Hall Lane home signal, and sent my mate back and he found that the drawbar on the thirteenth waggon from the engine had given way and the rest of the train was not in sight. I then proceeded cautiously to the home signal with the fireman on the rear vehicle, and was put into the siding at Hall Lane by the signalman on duty there. We remained at that place until single line working was brought into force. On arrival at Hall Lane I told the signalman that we had broken loose, but I did not know anything about the rear portion. I did not stop in Bowling Tunnel. When I gave the engine steam in the tunnel I did not feel the slightest pluck. We had just detected that we had broken loose and were bringing the train to a stand when the passenger train from Leeds passed us on the up line. I had no opportunity to caution the driver after finding that we had broken loose, as he passed us just as I discovered my train was in two parts. I did not go on straight to Hall Lane box because I wanted to see if the rear waggon was fit to travel. My engine was a six-wheeled coupled tender engine with vacuum brake on all wheels of engine and tender, and with hand brakes on the six tender wheels.

F. Tate, fireman, states: I have been in the Company's service 14 years, nine years as a booked fireman. I was fireman to acting-driver Cody on the 24th inst. I work the same hours as he does. I corroborate his statement. The rear drawbar on the thirteenth waggon was drawn out and missing. The drawbar at the leading end of the waggon was also drawn out about two feet. I came on duty at 8.30 a.m. on the 24th to work till 8.30 p.m. I was booked off from 11.15 to 1.55 p.m. at Leeds, where I live, and where I can go to my home. I came off duty on the 23rd at 11.40 p.m.

A. Carrack, spare goods guard, states: I have been in the service six years and a spare guard five years. I signed on duty on October 24th at 1 p.m., after 12 hours and 10 minutes rest, to work till 11 p.m. I worked the 3.15 p.m. goods train Leeds to Low Moor and the 6.10 p.m. Low Moor to Leeds. We left Low Moor at 9.8 p.m. and I was engaged entering up my road note when the train came to a dead stand at 9.12. I concluded that the train had been brought to a stand by signals, and I sat down on my locker. At 9.17 I took out my watch to see the time. I heard a train approaching and got up to see in which direction it was travelling, when I observed two white lights on the down line, and I was immediately knocked over by the trains colliding. I was in the inner portion of the brake van at the time, the door of which was knocked on the top of me. I scrambled from under the debris as quickly as I could, and on reaching the door the driver of the 9.5 p.m. goods, Low Moor to Laisterdyke, was getting on to the van step. The distant signal at the Low Moor end of the tunnel was on when we passed it. My train consisted of 29 waggons, 23 loaded and 6 empty, and a brake van. The tunnel was full of smoke at the time we were passing through it, and I should think the train came to a stand about the middle of the tunnel. I thought the engine was standing at the home signal at Bowling Junction. I felt no pluck whatever as we were running through the tunnel; the train ran quite steady. My brake was not on. I should have waited eight or

ten minutes before getting out of my van to see if anything was wrong.

James Burchall, driver, states: I have been in the service 20 years, and have been a booked driver about 2½ years. I was working the 9.5 p.m. goods train, Low Moor to Laisterdyke, on the 24th inst. We started from the goods siding at 9.12, and my train consisted of four loaded waggons and brake van. We drew steadily up to the advance signal, which was at danger, and stood there for about two minutes; it was taken off at about 9.16. The distant signal for Bowling Junction at the Low Moor end of the tunnel was at danger when we entered the tunnel. It was very dense in the tunnel, and after travelling about 600 yards we came in contact with a guard's brake van and some waggons in front of it, which were standing in the tunnel on the down line. I did not see the tail lights of the guard's van. I was running from 15 to 20 miles an hour with steam on at the time of the collision, but immediately shut it off, and just as I had done so the express passenger train passed on the up line. I then heard my guard calling our names and asking if we were hurt, but on assuring him that we were not, he told me to send my mate forward to Bowling Junction, as he was going back towards Low Moor to protect that end of the train. After my fireman had gone forward I saw that my engine was in proper order, and then went up to the brake van into which I had run, and called out to the guard, and afterwards climbed into the brake, when I found the guard was in a dazed condition. I asked him if his train had broken loose, and he replied he did not know. Afterwards I received a wrong line order to set back to No. 4 box. I came on duty on 24th at 8.15 p.m. to work till 7 or 8 a.m. next morning, having previously come off duty at 9.10 a.m. My engine was a six-wheels-coupled tender engine, and six-wheeled tender, with vacuum brake on all engine and tender wheels and hand brake on six tender wheels.

Henry Tomlinson, driver, states:—I have been in the service 28 years, and have been a booked driver 12 years. I was working the 9 p.m. Leeds to Low Moor passenger train on the 24th inst., and, except for a slight check at Bramley and Stanningley, had a clear road to Bowling Tunnel. I had checked my train, owing to permanent way operations at Bowling New Station, and entered the tunnel at a rate of about 20 miles an hour. After travelling some distance there was a crash, and something came through the weather glass on the fireman's side. I immediately shut off steam and applied the brake, but as I found the engine was on the rails I allowed the train to run forward until we were clear of the tunnel, as I thought this was the safest course to take. I pulled up there, and sent my fireman forward to No. 4 cabin to tell the signalman there was an obstruction in the tunnel and to ask him to block both roads. I got down to examine my engine the moment I got outside the tunnel, and then came forward to Low Moor and finished. On examination of my engine I found a part of a waggon (some ironwork and woodwork) on the front of my engine, and there was also a piece of a buffer casting on the footplate which had apparently come through the window. My engine was a 10-wheeled express passenger engine and six-wheeled tender, with automatic-vacuum brake on six of the engine wheels and six tender wheels, and hand brake on the six tender wheels.

J. Edwards, fireman, states: I have been in the service 12 years, and have been a looked fireman four years. I was fireman to driver Tomlinson on the 24th inst., and I work the same number of hours as he does. After entering the tunnel I did not notice anything on the down line as the tunnel was full of smoke, but just as I went to put the left hand injector on there was a crash, and something came through the weather glass on the right side of the engine. After striking the obstruction driver Tomlinson slackened the speed of the train, and allowed it to run slowly out of the tunnel before bringing it to a stand. He then sent me forward to No. 4 box to inform the signalman that there was an obstruction in the tunnel, and to ask him to block both roads.

John Faulkener, passenger guard, states: I have been in the service 31 years, and have been a guard 21 years. I was in charge of the 9 p.m. train from Leeds to Manchester on the 24th inst. We left Leeds to time, and our train was checked by signals at Armley and Bramley. My train consisted of six bogies. As we were passing through the tunnel I felt my van give a slight jump, and I heard a noise but was unable to see anything. I looked out of the van window but the tunnel was so full of smoke that I could not see anything. I did not see anyone in the tunnel. The driver came to a stand just outside the tunnel, and I was getting out of my van to go forward to the box, when the driver took the vacuum off and started away again. I called out to the signalman at Low Moor No. 4, when we were passing, that there was an obstruction of some sort in the tunnel. I advised the staff immediately we came to a stand at the station platform. No complaint was made by the passengers. I came on duty on 24th October at 12.45 p.m. to work till 10.30 p.m., having previously come off duty the 23rd at 10.30 p.m. My train was fitted throughout with the vacuum brake, which was in good working order at the time, having 20 inches of vacuum with blocks on all wheels of the train.

Thomas Cook, carriage inspector, Bradford, states: I have been in the service 20 years, seven as inspector. It was about 10.25 p.m. when I first heard of the collision, and I proceeded to the spot as quickly as possible. I examined the whole of the vehicles in the tunnel and found Low Moor Iron Company's waggon No. 161, which was the leading waggon nearest to Bradford, with a portion of the drawbar of another waggon attached to it. The drawbar attached to this waggon was in good condition with the exception that the cotter was missing. After examining the other vehicles, and taking particulars of the damages I went to Hall Lane with part of the rear portion of the 6.10 p.m. goods, Low Moor to Leeds. On arrival at Hall Lane, I found the rear vehicle of the front portion of the train which was Liversedge Coal Company's Waggon No. 7, was without the trailing drawbar and couplings, and the front portion was pulled out on account of it being a through drawbar. I made a strict search over the course travelled by the train up to the point of breakloose, for the missing cotter, but I have not been able to find it. The waggon was loaded at the Liversedge colliery about four miles from Low Moor. Private

owners' waggons are minutely examined at exchange stations when passing from one Company's line to another, and in yards when opportunity offers, but the owners are responsible for turning them out in good condition.

James Towns, signalman, states: I am 59 years of age. I have been in the service 28½ years, and have been a signalman 28 years, at No. 4 Low Moor about 24 years. I came on duty on October 24th at 2 p.m. for eight hours. I worked the same hours the previous day. I received the "Is line clear" for the 6.10 p.m. goods Low Moor to Leeds from No. 3 Low Moor, at 9.6. I accepted it, and received "Train entering section" at the same time. The train arrived at my box at 9.6. On offering the train forward to Bowling Junction at 9.9, after I had received "Train out of section" for the passenger train which passed me at 9.7, it was accepted, and I gave "Train entering section" at 9.9. I received "Train out of section" for it at 9.16, when I offered the 9.5 p.m. goods train Low Moor to Laisterdyke, which was accepted, and the train left my box at 9.16. I received "Is line clear" signal for the 9.5 p.m. up passenger train from Bradford to Low Moor at 9.10. I accepted it at the same time and received "Train entering section" signal at 9.11. The train passed me at 9.14, and I gave "Train out of section" for it at the same time. I received the "Is line clear" signal for the 9 p.m. up passenger train from Leeds to Manchester at 9.14 which I accepted, and "Train entering section" was given for it at 9.18. At about 9.22 p.m. the fireman of the Leeds train came to my box, and said there was something wrong in the tunnel, and their engine had been damaged on the six-foot side, but he did not know what it was. At this time the driver arrived with the train at my box, and he repeated what his fireman had told me. I telephoned at once to No. 2 west box, to inform the station staff that something was wrong in the tunnel, and that the engine of the passenger train then approaching the station had been damaged by coming into contact with some obstruction, and to tell the station staff to send someone down into the tunnel to see what was wrong, as I should not clear the up road till I knew what was wrong. About 10 minutes after the Leeds passenger train had passed, the guard of the Laisterdyke goods train came back to my box and said there was something wrong in the tunnel, and his train was standing in the tunnel. I asked him if they had run into anything but he could not tell me. I then instructed him to go back to ascertain what had occurred, and if the line was clear to let me know immediately they arrived at Bowling Junction. I omitted to give the "Obstruction danger" signal in either direction immediately the fireman came to my box, as it entirely escaped my memory to do so. I did not receive the "Obstruction" signal from Bowling Junction. At 9.24, when the Leeds train was standing at my box, the signalman at Bowling Junction called me up on the telephone, and asked me if the Leeds express had arrived. I replied "He is now standing at my box, and the driver says he has struck something in the tunnel." I then asked him if the Laisterdyke goods had arrived and he said "No." I had not any more conversation with him before I left duty at 10 p.m., and I was not aware that a collision had occurred until next day.

Conclusion.

It will be seen from the above evidence that the causes of these two collisions are quite clear.

Signalman Joshua Parkinson, at Bowling Junction box, accepted the 6.10 p.m. down goods train from the box in rear, Low Moor No. 4, at 9.8 p.m. After travelling through the tunnel between the two boxes the engine and first 13 waggons passed Bowling Junction box at 9.16 p.m., but Parkinson failed to observe that there was no tail lamp on the last vehicle, and so gave the "Train out of section" signal for the train to Low Moor No. 4, the box in rear, while the remaining 16 waggons and brake van were still in the tunnel, these having broken loose from the front portion, owing to a defective drawbar on the thirteenth waggon. Parkinson was then offered the second train, viz., the 9.5 p.m. down goods, and at once accepted it, with the result that it ran into the rear of the previous train with considerable force and caused two waggons of it to foul the other line of rails in the tunnel. Just at the time (9.20 p.m.) the 9 p.m. passenger train from Leeds to Manchester was passing on the up line, having passed Bowling Junction box at 9.18 p.m., and accordingly it ran into the waggons that were foul of the up line. Fortunately, the engine and carriages of the passenger train kept the rails, and so no harm resulted to it beyond some damage to the engine and carriages.

The blame for these two mishaps rests entirely with Signalman Parkinson, who failed to carry out the important duty of ascertaining if the rear vehicle of the first goods train had a tail lamp attached to it when it passed his box.

He states that the cutting in which his box stands was full of smoke, and that he thought he saw the shadow of the tail light, but as his box is not high up and actually alongside the line on which the train in question was travelling, I cannot regard this as a satisfactory excuse for his error. He also omitted to send the "Obstruction danger signal" in either direction when he knew of the accident. He had been on duty 7 hours and 20 minutes at the time, having previously been off duty for 24 hours.

Driver Cody, the engine-driver of the first goods train, states that when he entered the south end of the tunnel the down distant signal there was against him, but that when he sighted the disc down distant signal in the tunnel it was off, so he gave his engine steam cautiously. He states he felt no pluck when he gave his engine steam, and that there was nothing to lead him to suppose that he had a divided train. There was too much smoke hanging about the mouth of the tunnel for him to see if his brake van was following until he had crossed the junction on to the Great Northern line, and though he looked back several times he states he had got to the advance signal, 451 yards past the junction, before he saw that the brake van was not following. He then brought his train to a stand, and sent his fireman back to see what had gone wrong, and then proceeded to Hall Lane box. He states he did not go straight to Hall Lane box without stopping, as he wanted to ascertain if the rear vehicle was fit to travel. If he had gone straight on he would not have been in time to stop the passenger train as it passed him before he came to a stop just after he discovered his train was divided.

It might have been better judgment on his part to have gone straight on to Hall Lane to give information at once to the signalman, but there was no danger in his stopping as, just past the junction, the line is on a rising gradient of 1 in 150, so the part broken loose could not have run forward and collided with the front part. He evidently acted as he thought best, and is not to blame in any way, I consider.

Driver Burchell, of the second goods train, had no chance of avoiding the collision as the tunnel was so smoky that he could not see the tail light of the brake van of the first train. He is not to blame in any way.

It is impossible to say what actually caused the disconnection of the drawbar of the thirteenth waggon, which was one belonging to private owners, viz., The Liversedge Coal Company. This drawbar (1½ inches in diameter) was in two lengths, one 3 feet 6 inches long, the other 12 feet 9 inches long, and these were united by means of a sleeve and two cotters. The cotters were secured by iron rings. By some means the cotter which fastened the short length of drawbar, which was at the leading end of the waggon, must have fallen out, with the result that this short length of drawbar was pulled right out of the waggon, thus causing the break-loose. Two cotters were subsequently picked up on the line over which the train had travelled, one with a broken head and the other with the securing ring missing, and, from their appearance, it is probable that the one with the missing ring belonged to the waggon in question. From the position of these cotters, right underneath the body of the waggon, a deficient securing ring would not be noticed unless a minute examination of the waggon was made.

I have, &c.,

The Assistant Secretary,
Railway Department, Board of Trade.

E. DRUITT,
Major, R.E.

APPENDIX.

PARTICULARS OF DAMAGE TO ENGINES.

Engine No. 1132 of Second Goods Train.—Brick arch knocked down and two tender buffers damaged.

Engine No. 718 of Passenger Train.—Smoke box bulged; hand rails bent; right side footstep broken off; cab shifted and spectacles broken.

PARTICULARS OF DAMAGE TO COACHES AND WAGGONS.

Passenger Train.

Lancashire and Yorkshire Bogie Third Van, No. 265.—Waist panels and footboards damaged.
Lancashire and Yorkshire Bogie Composite, No. 482.—One short footboard broken.
Lancashire and Yorkshire Bogie Third, No. 474.—One waist panel and projection broken.

Goods Train.

Lancashire and Yorkshire Waggon, No. 2371.—Two axle guards, nine axle-guard bolts, three axle boxes, one headstock, four end planks, two end posts, two capping irons, and one corner plate broken; one corner plate, two buffer rods, and two buffer heads bent; one headstock and one end plank grazed, and wheel flanges cut.
Liversedge Coal Company's Waggon, No. 7.—One drawbar cotter and face plate damaged.
Lancashire and Yorkshire Goods Brake Van, No. 6738.—Four end boards, one headstock, one

end light, one partition light, and one partition board broken; one partition door displaced; one hand rail and, one corner plate bent; and one side footboard broken.

Brooks and Pickup Waggon, No. 406.—Two axle-guard bolts broken.

Great Central Railway Waggon, No. 8061.—One axle box, one buffer liner, and one solebar broken; one axle guard, two solebars, two buffer hoops, one brake guard, and one end post damaged.

Low Moor Iron Company's Waggon, No. 60.—One bearing-spring shoe missing.

Low Moor Iron Company's Waggon, No. 35.—One bearing-spring shoe missing.

J. Nicholson & Son's Waggon, No. 1.—One buffer head, one end post, one end block, and two buffer castings broken; one buffer rod badly bent; one diagonal and one corner plate damaged.

Great Central Railway Waggon, No. 8434.—Broken up.

DAMAGE TO PERMANENT WAY.

Eleven chairs broken.

Printed copies of the above Report were sent to the Company on the 17th December.

LANCASHIRE AND YORKSHIRE RAILWAY.

Railway Department (Board of Trade),
8, Richmond Terrace, Whitehall, London, S.W.,
November 22nd, 1901.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with your Order of the 11th November, the result of my inquiry into the causes of the collision, which occurred on the 4th November, between a passenger train and a pilot engine at Todmorden, on the Lancashire and Yorkshire Railway.

In this case the 3.55 p.m. passenger train from Manchester to York was turned down the branch line to Burnley at Todmorden No. 3 signal-box, instead of proceeding along the down main line, and ran into a pilot engine which was standing about 130 yards along the former line.

The passenger train consisted of a four-wheels-coupled express engine with leading bogie and a six-wheeled tender, with automatic vacuum brake on the four coupled wheels of engine and six tender wheels, and hand brake on six tender wheels, and of three bogie carriages, viz. :—

One Bogie Carriage Brake,
One Bogie Composite,
One Bogie Carriage Brake,

fitted with the automatic vacuum brake on all wheels, which is stated to have been in very good working order.