

T. Greenwood's Waggon, No. 4.—Two end diagonal damaged; two buffers and four axle posts and one axle box slide broken; one end guards bent; wheel tyres cut; and brass bearings post, two sole bars, one longitudinal, and one displaced.

Printed copies of the above Report were sent to the Company on the 10th December.

LANCASHIRE AND YORKSHIRE RAILWAY.

Railway Department, Board of Trade,
8, Richmond Terrace, Whitehall, London, S.W.,
6th November, 1903.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 23rd October, the result of my inquiry into the causes of the double collision which occurred on the 22nd October between a passenger train and a light engine, and between two passenger trains, at Sowerby Bridge on the Lancashire and Yorkshire Railway.

In these cases the 7.10 p.m. express passenger train from Leeds to Liverpool came in contact with a light engine standing on the up main line at No. 1 signal-box, Sowerby Bridge, the result of which was that the two leading carriages were derailed foul of the down line, and immediately afterwards the 6.40 p.m. passenger train from Manchester to Bradford ran into the two derailed carriages.

One passenger of the Liverpool express was killed and 17 injured. The driver and fireman of the express were also seriously injured.

The light engine was a four-wheels-coupled tank engine with leading and trailing radial axles, with automatic vacuum brakes on the four coupled wheels, the blocks being also operated by hand.

The Liverpool express consisted of a ten-wheeled bogie passenger engine with six-wheeled tender fitted with the automatic vacuum brake on all wheels of the engine and tender with the exception of the wheels of the bogie, and of six bogie carriages in the order named, viz. :—

Bogie third van,
" composite,
" third van,
" third van,
" composite,
" third van,

with the automatic vacuum brake working on all the wheels.

The Bradford train consisted of an engine similar to the light engine described above and of the following vehicles in the order named, viz. :—

Bogie third van,
" composite,
" third class,
" third class,
" third van,
Parcel van with six wheels,
Two North-Eastern Company's horse boxes,
four wheels each,

fitted with the automatic vacuum brake on all the wheels with the exception of the centre pair of the parcel van and those of the rear horse box. All the brakes are stated to have been in good order.

The first collision occurred at 7.58 p.m. The night is said to have been slightly misty.

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

Description.

Past Sowerby Bridge No. 1 signal-box the up and down main lines run approximately east and west, the up line being on the south of the down line. The signal-box is immediately to the north of the down line.

Just opposite the signal-box are the trailing points in the up line leading out from the up sidings and warehouse, and about 30 yards further west are the trailing points in the up line of the cross-over road between the up and down lines. Twenty-three yards west of the cross-over points a tunnel commences which is 660 yards in length.

One hundred and twenty yards east of the signal-box are the up main line home

signals, an up loop line joining the up main line with trailing points 57 yards from the signal-box.

The up through distant signal is 571 yards further east underneath the up through home signal for No. 2 signal-box.

Owing to the tunnel there is no up starting signal for No. 1 signal-box.

The down home signals for No. 1 box are on a bridge 30 yards west of that box, and 23 yards outside the mouth of the tunnel, and there is a facing connection in the down line 38 yards east of the signal-box leading to a down loop. The gradients are unimportant.

The following rules of the Company have a bearing upon this accident :—

I. RULE 55 (b). When a train or vehicles have passed a home signal, and are waiting to be crossed to another line, or to be let into a siding, or have been shunted on to the opposite running line, or placed on either a main or branch line at a junction, or when a train or vehicles have been shunted from a siding on to a running line and are waiting to be crossed to another line, the guard, shunter, or fireman must, when the train or vehicles come to a stand, proceed immediately to the signal-box, and remind the signalman of the position of the train or vehicles, and remain in the box until the signalman can give permission for them to proceed, or to be shunted clear of the running lines.

(c) The duty of going to the signalman must be performed as under :—

(i.) In the case of a light-engine, or of a passenger train with only one guard, by the fireman ; the guard in the latter case remaining in charge of the train.

II. Regulations for train signalling by block telegraph on double lines of railway.

13. Blocking back (inside home signal). When it is necessary, after the passing of one train and before giving permission for another to leave the signal-box in rear, to obstruct the line inside the home signal, by crossing a train, &c., or by standing a train or part of a train on it, for shunting purposes, &c., the blocking back signal must, unless instructions are issued to the contrary be given to the signal-box or boxes in the rear, and on this being acknowledged by repetition, the block indicator for the line or lines intended to be occupied must be placed or maintained at the "Train on line" position.

Evidence.

Alfred Wolsey, signalman, Sowerby Bridge No. 2 box, states : I have been in the service 12 years, and a signalman 10 years. I have been in Sowerby Bridge No. 2 box about 12 or 13 weeks, previous to which I worked at Hebden Bridge East. On October 22nd, the day of the accident, I came on duty at 2 p.m. to work until 10 p.m., having gone off duty the previous day at 10 p.m. On the up line I had a light engine for shed, which I signalled to No. 1 box at 7.25, receiving acknowledgment same time. I gave "Train entering section" at 7.25 when it left me, and received "Out of section" at 7.27. The next I had was Ripponden goods, which I offered to No. 1 at 7.28, accepted at 7.28, passed me at 7.29, and I received "Out of section" at 7.31. After this was a pilot engine and waggons from down loop which No. 1 accepted under Clause 5 at 7.31. It left me 7.32 and I received "Out of section" 7.34. The next was No. 4 special which I offered to No. 1 at 7.34, received acknowledgment at 7.35. It passed me at 7.40 and I received "Out of section" at 7.41. I received "Is line clear" for the 7.10 p.m. Leeds to Liverpool express from No. 3 at 7.53. It was accepted by No. 1 at 7.53 and passed me at 7.57. On the down line I had a special goods from Mytholmroyd signalled to me by No. 1, which I accepted at 7.49, receiving "Entering section" at 7.54. It passed me at 7.56, when I gave "Out of section" to No. 1. The next was the 6.40 p.m. Manchester to Bradford train, which was offered to me at 7.56, accepted at 7.56, and acknowledged by No. 3 at 7.57. The first I knew of the accident was hearing a crash when I was waiting to receive "Train out of section" signal for the Leeds to Liverpool express. I received no signals from No. 1 box, but received "Obstruction danger" signal about 9.2 p.m., after I had been in conversation on the telephone with Inspector Heckingbottom. About two or three minutes after the accident, signalman Albon at No. 1 box rang up the circuit and informed me that there had been an accident. A few minutes afterwards

he told me that the Leeds express had run into a light engine. That is all I know about it.

R. Wood, goods inspector, Sowerby Bridge, states : I have been an inspector since 1901, and my duty is to look after the work in the yard and keep it going. On October 22nd I came on duty at 6.30 p.m. to work till 10.30 p.m., having come on duty at 12.30 p.m. elsewhere. The Ripponden pilot engine, which had propelled about 12 or 14 waggons from No. 2 on the up line, drew into the sidings about 7.30 p.m. at No. 1 box, and I should think it was 20 minutes disposing of its waggons. While this engine was in the sidings, another pilot engine arrived with some more waggons from the down side at 7.34 p.m., and this engine took the waggons off the Ripponden engine inside the sidings. About 7.50 p.m. I had finished with the Ripponden engine which required to go to shed, and I instructed shunter Southwell to ask the signalman at No. 1 to get it out of the way, because I wanted to use the road in which it was standing. This the signalman did at once. After the accident I went into the signal-box and signalman Albon told me that he had forgotten the light engine. At the time of the collision the pilot engine was working just about opposite to the up sidings in the warehouse about half way between up home signals and the signal-box. Between 7.50 p.m. and the collision the signalman was working the points leading from the shunting neck to the warehouse for the engine shunting. The signalman would know what to do by means of the shunting horn. I should say the signalman would have had to move the points about four times between 7.50 p.m. and the time of the collision.

F. Southwell, goods shunter, Sowerby Bridge, states : I have been working partly as goods porter and partly as shunter for 3 years. On October 22nd I came on duty at 8 a.m. to work till 8 p.m. I was on duty shunting, and when the Ripponden engine brought the 12 waggons into the yard about 7.30 p.m., we took it into the warehouse road and

got the pilot to take the waggons off it, occupying about 20 minutes. Inspector Wood wanted the Ripponden engine out of the way, as it had to go to shed, and I went to the signalman and asked him if he could get the engine out of the sidings. He asked if it was in our way, and I said "Yes." He then let the engine out on to the main line. I know nothing about the accident except that I heard the crash, and at this time I was engaged shunting at the tunnel end of the siding. The signalman did not object to draw the engine out, but at once pulled over the points and lowered the signal for the engine to go out on to the up main line. The signalman had to work the points in the siding after this, and I communicated with him by means of a horn about four times before the collision occurred.

David Helliwell, acting driver, states: I have been in the service since 1889, and was booked fireman in 1896, and have been an acting driver for the last five years. On October 22nd I signed off duty at 6 a.m. and signed on again at 6 p.m., expecting to finish about 6 a.m. the next morning. I was booked off half an hour for meals. My engine was No. 1,262, which is a four-coupled side tank with leading and trailing radial. I was working the Ripponden branch goods train from Rishworth to Sowerby Bridge, and when I got to Sowerby Bridge No. 3 cabin I propelled the waggons to the tunnel end and drew them into the up sidings through the points opposite the signal box at 7.30 p.m. About 7.45 p.m. we were told to go to shed, and I opened my whistle to indicate that we wanted to go across. At 7.50 the signalman set the road and we drew out on to the up main line. I brought the engine to a stand about two yards clear of the cross-over road points at 7.51 p.m. At that time I noticed the down home signal for No. 1 box was off, and a goods train came out of the tunnel three minutes or so afterwards. When this train had cleared I expected to be let across, but I did not whistle; but the signalman again lowered the down home signal, about one minute later. Knowing that the Leeds to Liverpool express was about due, I looked down the line and caught sight of the express lights. At that time it would only be about 50 or 60 yards from us. I and my mate at once jumped off the engine into the six-foot space. I had got the engine reversed so as to go to shed and had not time to reverse it again and get the engine in motion. We just got clear and across the down line when the collision took place. There was a fearful crash and the light engine and the express disappeared into the tunnel. I think the first coach jumped up and knocked the down signals away. I at once went to the shed and informed the shed-man what had happened. After this I went into the tunnel to look where my engine had got to, and found it about 40 yards on the west side of the tunnel. It had not been derailed, but the front buffer plate and cylinders were entirely smashed. I then went back and assisted in the tunnel. I did not go into the cabin. The weather was quite clear at the time. While standing at the tunnel mouth the engine was chimney towards Sowerby Bridge Station. I could not see the up home signals for No. 1 box on account of the steam from the engine in the up loop standing at the signals blowing across the line. When I brought my engine out on to the main line I whistled to indicate to the signalman that I was clear of the points, and did not whistle again until after I saw the express approaching, when I just opened the whistle before jumping off. The reason I did not whistle was because after the goods train had passed, the

signalman lowered his signals again for another train, and I knew he could not let me across. I generally wait about ten minutes before sending my fireman to a signal box when detained at signals. I had a red light on the engine and a white light on the tender end. The fireman changed the lights in the warehouse siding.

Austin Barker, acting fireman, states: I have been in the service since August, 1896, and acting fireman for four or five years. I signed on duty on October 22nd at 6 p.m. to work with driver Helliwell, having previously signed off duty on the same day at 1.30 a.m. I remember our engine being let out on to the up main line and the driver whistling for the points. I could not say whether my driver whistled afterwards. When we were standing on the main line there was a red light under the chimney, which was facing Sowerby Bridge Station, and a white light at the other end. The express was about 60 yards away from us when we caught sight of it. I could not see the up home signal at No. 1 box on account of an engine standing in the up loop line. I was about five yards away when the collision occurred. We both of us jumped off on the same side.

Albert Edward Turner, driver, stationed at Sowerby Bridge, states: I have been in the service since 1867, and a booked driver since 1876. I signed on duty on the day of the accident at 1.55 p.m., expecting to finish about 12.20 a.m. On the day before I had signed off duty at 11.20 p.m. I was working the 6.40 p.m. slow train, Manchester to Bradford, with engine No. 104, which is a four-coupled radial tank with automatic vacuum brakes on the four coupled wheels and hand brake working the same blocks. We stopped at all stations from Middleton Junction and left Luddendenfoot at 7.54 p.m. The distant signal for Sowerby Bridge No. 1 box was at danger and I shut off the regulator before entering the tunnel and travelled steadily through, prepared to stop at the home signal at the outlet of the tunnel. The tunnel was full of smoke, and I had got my head outside the cab, having heard a noise like a fog signal going off. I was trying to find out whereabouts in the tunnel I was when something came against my cap and I called out to my mate to keep inside the cab. Almost at the same moment my engine came into collision. I did not see the light engine pass. I think I should be travelling about 10 or 12 miles an hour when the collision occurred. I immediately put on the brakes. We were both shaken, but have not been off duty in consequence. My engine was badly damaged at the front end, the smoke box and buffer plate and cylinders being smashed, but the engine wheels were on the rails. After making the engine right I went through the tunnel to let the staff know what had occurred, and my fireman went back.

John Bottomley, fireman, states: I have been in the service since 1890 and a booked fireman since 1899. I signed on duty on October 22nd at 1.55 p.m. to work with driver Turner, having signed off duty at 4.45 a.m. the same day. I noticed the distant signal for Sowerby Bridge No. 1 was on, and when we were running through the tunnel and had got about half way I heard an unusual noise and came well inside the cab. Almost immediately afterwards there was a crash. I did not see the light engine pass, but I noticed the glare of the express engine, and it seemed to be about the same time that the collision occurred.

In consequence of the accident the smoke box and the steam jet were broken, and all the fire came out of the fire hole. After the engine was made right I went back to see how the passengers were. We should be travelling about ten miles an hour at the time of the collision, and we had come very slowly through the tunnel. The tunnel was full of smoke.

William Henry Batty, passenger guard, Wakefield, states: I have been in the service thirteen years and a guard five years. I was guard of the 6.40 p.m. train from Manchester to Bradford, and signed on duty at 1.10 p.m. to work until 11.30 p.m., having worked the same turn the day before. The distant signal was on at Sowerby Bridge No. 1 when we approached and passed it. The first thing that called my attention to the accident was the stoppage of the train, and I got my hand lamp and immediately saw an engine pass me. I felt a very slight shock to the train, but I heard a noise like a thump and I was sure we had hit something. I made my way to the front of the train, the tunnel being full of smoke and steam. I called out to the passengers to keep their seats. I heard no complaints from the passengers, and as soon as I got to the wreckage I assisted a man to get out of the front part of the train into which we had run. I went to look for my driver and fireman, and on finding them I asked the fireman to look after the passengers while I went back to Cooper House to protect my train. I found the express engine was about 30 yards in the rear of my train, and the light engine about 40 or 50 yards outside the tunnel. My train was formed as follows:—

Engine, No. 104.
 Bogie third van, No. 2,991.
 „ third composite, No. 848.
 „ third class, No. 1,879.
 „ third class, No. 2,828.
 „ third van, No. 1,827.
 Parcel van, No. 76, six wheels, brakes on outside pair of wheels.
 North-Eastern empty horse boxes, Nos. 305 and 399, four wheels each, one fitted with both brakes, and one, which was in rear, with Westinghouse only.

The train was very lightly loaded as I do not think there were more than 12 passengers after we left Luddendenfoot.

Arthur Artist, train-booker, Sowerby Bridge No. 1 box, states: I came on duty on October 22nd at 2.30 p.m. to work until 11 p.m., having gone off duty at 10.40 p.m. the night before. The figures in the train register book are in my writing and I believe them to be correct. I did not see the light engine come out of the sidings, and I should not have made any entry for it until it had been crossed to the down line. I have been five months in the Company's service. The signals were all off for the up express, and were put back at once after the collision. The signalman said nothing to me after the collision, but sent the obstruction signal to Cooper House sidings box.

William Robinson, passenger guard, Liverpool, states: I have been in the service 19 years and a guard for 11 years. On October 22nd I came on duty at 10.15 a.m. to work until about 10 p.m., having worked the same time the day before. I have equal to about three hours off duty between trains. I was guard of the 7.10 p.m. express from Leeds to Liverpool, and rode in the rear van of the train. Approaching Sowerby Bridge No. 2 box I noticed the signals at the up end of the platform were all off. Soon

after I was thrown down in the van. I was shaken, but have not been off duty. My train was composed as follows:—

Engine, No. 1,404.
 Bogie third van, No. 663 ... } Leeds
 „ composite, No. 835 ... } portion.
 „ third van, No. 2,750 ... }
 „ third van, No. 2,732 ... } Bradford
 „ composite, No. 832 ... } portion.
 „ third van, No. 858 ... }

When the train stopped my van was just inside the tunnel mouth. Directly I found out that there had been a serious accident I went to the signal-box and shouted to the man to block both roads, and also went into the box to make sure that he had heard me. When I got to the box the signalmen had his head in his hands, and he told me that he had forgotten the light engine, and that the down train was coming. I then told the train-booker to telephone to the station for help and to both sides of the obstruction. After I had got out of my van I did not hear any noise, so I presume the Bradford train must have hit our train before I alighted from the van. There were about 18 passengers in the Leeds portion, and the Bradford portion was fairly loaded, but not heavy. I instructed some men belonging to the goods department to go back and protect my train. I noticed the driver applied the brake coming down the bank towards Milner Royd Junction. We were travelling at the usual speed when passing through Sowerby Bridge Station. I think the two front carriages of my train were off the line. I had about 18 inches of vacuum leaving Leeds.

George William Albon, signalman, Sowerby Bridge No. 1 box, states: I am 29 years of age, and have been in the service about 12 years and a signalman seven years. I have worked in Sowerby Bridge No. 1 box for about 17 months. On the 22nd of October I came on duty at 2 p.m. to work until 10 p.m., having worked the same hours the day before. The "Is line clear" signal for the Ripponden pilot was offered to me by No. 2 box at 7.28, acknowledged at 7.28, "Train entering section" received 7.28, and arrived at my box at 7.30, where I put it into the up sidings and gave "Out of section" for it to No. 2 at 7.31. The engine propelled the waggons (14) to me, and then it drew them into the sidings. At 7.31 I had a pilot engine with waggons offered to me by No. 2, which I acknowledged at same time under Clause 5. I received "Train entering section" at 7.31, and the train arrived at 7.34, and was put into the up sidings, "Train out of section" being given to No. 2 at 7.34. The next on the up line was No. 4 special, which was offered by No. 2 at 7.34, accepted by me at 7.35, "Train entering section" being received at 7.40. It passed me at 7.41, was accepted in advance at 7.35, "Train out of section" being given by me to No. 2 at 7.41, and "Train out of section" received from Cooper House siding at 7.43. Then I had the 7.10 p.m. Leeds to Liverpool express offered to me at 7.54, which I acknowledged to No. 2 box at the same time, and had it accepted in advance at 7.54. I received "Train entering section" signal for it at 7.57, and it arrived at 7.58, and came into collision with the Ripponden light engine. The Ripponden engine was brought out of the sidings at 7.50 p.m. on to the up main line. On the down line a special goods train from Mytholmroyd to Greetland was circuited to me at 7.40, "Is line clear" was accepted by me at 7.41, "Train entering section" received at 7.50, passed me at 7.55, acknowledged in advance at 7.49, "Train out of section" given by me at 7.56, and received by me from No. 2 at

7.57. I intended crossing the light engine directly this goods train had passed. At 7.56 the 6.40 p.m. passenger train from Manchester to Bradford was offered to me, and I accepted it at the same time. I received the "Entering section" signal for it at 7.56, and the train was accepted in advance at 7.57. The Ripponden light engine was not in my mind at the time I accepted the Manchester to Bradford train. The driver might have whistled for the crossing points to be reversed when he cleared them, but he did not whistle afterwards to remind me that he was standing there. He had a red light on the front of the engine when he came out of the siding. I had to work the points leading from the shunting neck to goods warehouse, the shunter signalling by horn, and shunting was going on continuously all the time. It is not

usual to use the blocking back signal when crossing engines from one siding to another. The only explanation I can give for forgetting the light engine is the diversity of my duties at the time, viz., being engaged in shunting, the arrival of the down goods train just in advance of the down passenger, and superintending telephone messages being taken by the boy Artist as there had been some complaints about the messages not being correctly taken. The driver did nothing to attract my attention after getting on to the up line. There were two telephone messages received just then by Artist, one at 7.50 p.m. and the second at 7.55. The first was sent on by telephone by the boy to the station, the second I had in my hand at the time of the accident.

Conclusion.

The cause of this unfortunate collision is fully explained by the evidence of signalman Albon, who was on duty at the time at No. 1 signal-box, Sowerby Bridge.

At 7.30 p.m., just half-an-hour before the collision, an engine and 14 waggons arrived at his box and were at once placed in the up sidings clear of the up main line.

At 7.34 p.m. a pilot engine with some waggons arrived and were also at once placed in the up sidings clear of the up main line.

At 7.41 a special train passed on the up main line for which Albon received the "Out of section" signal from the signal-box in advance at 7.43 p.m.

At about 7.50 p.m., at the request of the shunter Southwell, Albon brought the engine which had arrived at 7.30 p.m. (which was no longer required in the sidings and was in the way of the shunting operations there) out on to the up line by the connection opposite his box, and it came to a stand 30 yards from it, at the points of the cross-over road, waiting to cross over to the down line and thence to the locomotive shed.

Albon could not at once let this light engine across as at 7.41 p.m. he had accepted a special goods train on the down line, for which he received the "Entering section" signal at 7.50, and it passed his box at 7.55 p.m., and he received the "Out of section" signal for it at 7.56 p.m.

He states he had intended to cross the light engine from the up to the down line and so to the locomotive shed, after the passing of the down goods train, but at 7.54 p.m., only four minutes after the light engine came out of the sidings, Albon was offered from No. 2 box the 7.10 p.m. Leeds to Liverpool up express, and, forgetting all about the light engine standing just by his box on the up line, at once accepted it; he received the "Entering section" signal for it at 7.57, and it arrived and came into collision with the light engine at 7.58 p.m.

In the meantime, at 7.56 p.m. Albon was offered the 6.40 p.m. Manchester to Bradford passenger train, and, still forgetting the light engine, at once accepted the passenger train, and almost at once received the "Entering section" signal for it.

The men on the light engine saw the express when a short distance away and jumped off, thereby probably saving their lives.

The collision was a very violent one as the express was running at full speed with all signals off for it; the light engine was driven right through the tunnel, a distance of 693 yards, the engine of the express broke loose from its train and ran a distance of 270 yards into the tunnel, both engines keeping the rails, the carriages coming to rest just inside the tunnel. But the two leading carriages of the express fouled the down line and the Bradford train which had passed the box in rear at 7.56, two minutes before the first collision occurred, ran into these carriages almost at once, before any steps could possibly be taken to stop it. Fortunately it was running very slowly, the distant signal being at danger, or the result might have been worse. The engine came to rest 55 yards from the east end of the tunnel. Unfortunately one passenger in the second coach of the express appears to have got out of the compartment and was crushed to death between the engine of the Bradford train and the vehicle; of the remaining passengers of the express none were seriously injured. Fortunately the carriage next the engine of the express was empty, as it was broken up.

It will thus be seen that this double collision was due to signalman Albon's forgetting the light engine which was standing on the up line only 30 yards from his signal-box. This engine came out from the siding about 7.50 p.m., and Albon accepted the Liverpool

express on the same line at 7.54 p.m., only four minutes later, although it did not arrive for another four minutes, at 7.58 p.m.

Albon states the only way he can account for this lapse of memory is that he was engaged in many duties at the time, viz. :—

1. Two trains on the down line, the first accepted at 7.41 p.m. and passing 7.55 p.m., the second being the Bradford train accepted 7.56 p.m.

2. Being engaged in shunting in the sidings and making about four or five separate sets of lever movements between 7.50 p.m. and 7.58 p.m.

3. Looking over two telephone messages which were received and written down by the booking boy Artist, and then forwarded again by the boy to the telegraph office at Sowerby Bridge Station. The first of these messages was received at 7.50 p.m. and was forwarded to the station, and the second was received at 7.55 p.m., and Albon states he had this message form in his hand when the accident occurred, and that he had to superintend the messages taken by the boy as complaints had been made of mistakes in them.

Although Albon was fully occupied, I do not consider that his duties were such as to form any excuse for his forgetting about the light engine, although they appear to have been the reason for it. The hours of duty at this box are eight, and there is a boy to assist in booking, attending to telephone, &c. Albon had been on duty about six hours at the time of the collision, and is 29 years of age, with a good record.

I do not consider Albon should have let the light engine out of the sidings at 7.50 p.m., as he could not at once get it clear of the running lines. He was working with too fine a margin knowing that the Liverpool express was almost due, and had he remembered the light engine at 7.54 p.m. when offered the express, he could not have accepted the latter, as he must have waited either until after the passing of the down goods train at 7.55 p.m. to put the light engine across to the down line, or he must have put it back into the up sidings, and so have delayed the express in any case.

The men on the engines of the two passenger trains had no chance of avoiding the collision. The driver of the express was too ill to attend the inquiry, but it is doubtful if he saw the light engine until just as the collision occurred. The line is on a curve approaching No. 1 signal-box, and there was an engine blowing off steam standing in the up loop line at the home signals. This steam is stated by the driver and fireman of the light engine to have obscured their view of the back lights of the up home signals, and so they could not notice the fact that the up main line home signal was lowered, and as there is no up starting signal at No. 1 box they were unaware of the approach of the express until it was about 60 yards away.

With regard to the rules of the company quoted above, the first as it stands no doubt lays down that when an engine comes to a stand on a running line waiting to be crossed to another line, the fireman must proceed immediately to the signal-box and remind the signalman of the position of the engine, and remain in the box until the signalman can shunt the engine clear of the running line, but though this would apply if the engine were at any distance from a signal-box, yet in a case like this, when the engine was only 30 yards away from the box, and its red light in full view, I do not consider that the driver or fireman is to be blamed for not carrying out the rule at once, as the Company, I am informed, discourage the practice of firemen going to signal-boxes, as it is dangerous to the men to be crossing running lines and sidings, and where a signal is at any distance from a box means of communication between a driver standing at the signal and the signal-box are provided at certain very busy places. But not having sent the fireman to the signal-box I consider Helliwell, the driver of the light engine, should have whistled to remind Albon of the engine being on the up line. Helliwell states he whistled as soon as he had come out on to the up line at 7.50 p.m. and was clear of the points of the cross-over road, but as the down home signal was off he knew he could not be left across until the down train arrived, which it did at 7.55 p.m. The down home signal was then put to danger, and after about a minute's interval was again lowered for the Bradford train. Helliwell admits he did nothing either by whistling or shunting to attract the signalman's attention, and in this respect I think he is to blame. He should at 7.56, when he found he was still left on the main line, either have sent his fireman to the box or attracted the signalman's attention, as he admits that he knew the Liverpool express was due. Had he done so it was not too late for the signalman to have thrown all the signals to danger and got the light engine out of the way.

With regard to the second rule as to blocking back when a line is obstructed inside the home signal, the Company do not expect it to be carried out in a case like this

when a light engine is waiting to cross from one line to another, but do order it to be carried out in the case of a train being shunted from one running line to another. Under these circumstances Albon is not to blame for not carrying out the rule.

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

The Assistant Secretary,
Railway Department, Board of Trade.

APPENDIX.

DAMAGE TO ROLLING STOCK.

Engine No. 104, working 6.40 p.m. Manchester to Bradford.—Engine framings badly damaged at leading end; bunker end knocked in; right-hand side tank knocked in; cylinders broken; foot-steps broken off on the left-hand side; whistle broken off; smoke box badly damaged; blast and steam pipes in smoke box damaged.

Engine No. 1,262 (light engine).—Leading buffer plate broken off; framing on both sides badly bent; cylinders broken and displaced; radial guide bolts sheared off; leading springs and links knocked off; smoke box badly damaged.

Engine No. 1,404, working 7.10 p.m. express Leeds to Liverpool.—Bogie castings all smashed; framings broken and bent; cylinders broken and displaced; all bolts sheared off and slide bars knocked out; smoke box destroyed; steam pipe broken; motion all damaged; drag plate displaced, bolts all sheared away; footsteps broken; hand railing bent; right-hand tender axle box broken and tender end knocked in; driving axle bent a little.

7.10 p.m. Train, Leeds to Liverpool.

Bogie Third Van, No. 663.—Body completely broken up; bogies displaced; and body frame badly damaged.

Lavatory Bogie, No. 835.—One sole bar, two headstocks, one cross timber, one longitudinal, one buffer casting, nine leg irons, double vacuum cylinder, two gas cylinders, two friction blocks, all footboards, five roof boards, one quarter light,

gas globes, vacuum train pipe, steam pipes, one draw bar, spiral springs, brake work and end panels, &c., broken; one bogie, seating, doors, &c., damaged; two screw shackles, one draw bar, and three leg irons bent.

Bogie Third Van, No. 2,750.—Vacuum train pipe, I. R. pipe, one steam pipe, end panels, casing, boards, intercommunication, gas fittings, and one opal light broken; one draw bar and two buffers bent; seating displaced; and body moved.

Bogie Third Van, No. 2,732.—One opal light broken and gas pipe joints shaken.

Lavatory Bogie Composite, No. 832.—Body moved and gas pipe joints shaken.

Bogie Third Van, No. 858.—Body moved and gas pipe joints shaken.

6.40 p.m., Manchester to Bradford.

Bogie Third Van, No. 2,991.—One bogie bolster, one buffer casting, one folding door pillar, one gas side lamp, and one steam trap broken; one bogie bolster and gas pipes damaged; two buffers bent; and body moved.

Bogie Composite, No. 848.—One door light and frame, and four footboards broken; one headstock and one bogie iron frame slightly damaged; and two leg irons bent.

Parcel Van, No. 76.—Two buffer rods bent.

Damage to Permanent Way.

50 chairs broken; 30 sleepers broken; one rail broken.

Printed copies of the above Report were sent to the Company on the 30th December.

LANCASHIRE AND YORKSHIRE RAILWAY.

Railway Department (Board of Trade),
8, Richmond Terrace, Whitehall, London, S.W.,
30th November, 1903.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in accordance with the Order of the 11th November, the result of my inquiry into the circumstances which led to a fatal accident about 6 p.m., on the 2nd November, at St. John's Road level crossing, near Waterloo Station on the Lancashire and Yorkshire Railway.

In this case, an old lady was crossing the railway on foot, when she appears to have been struck by the 5.55 p.m. up passenger train, travelling from Hall Road to the Exchange Station, Liverpool. The lady was found lying unconscious at the foot of the bank on the east side of the railway, close to the level crossing, and died shortly afterwards. She approached the crossing from the west.