

APPENDIX.

Damage to Permanent Way.

30 yards rails, steel, 86 lb. section, 6 sleepers, 10 chairs (crossing), 124 spikes, 20 fish plates,
206 treenails, 130 keys, 77 chairs (ordinary), 6 fish bolts.

Damage to Rolling Stock.

Lancashire and Yorkshire bogie 3rd, van No. 2317.—Five quarter lights, one bogie frame, brake work, two axle boxes, one Clayton's cylinder, one headstock, two sole bars, end longitudinals, end diagonals, middle longitudinals, one cross bearer, vacuum pipes and gas fittings broken; guard's compartment badly damaged.

Lancashire and Yorkshire composition, No. 666.—Body moved.

Lancashire and Yorkshire bogie 3rd, van No. 2663.—Body moved.

Damage to Engines.

Passenger Engine 8.—Left frame badly bent, smoke box, coal bunker, cab, platforms, brake-gearing badly damaged, cylinders smashed, tanks and bogie slightly damaged.

but the tender horn-plates, keep stays, axle-boxes, buffer beam and tank damaged.

Light Engine 449.—Buffers, buffer beam, hind sand-boxes and cab damaged, R. H. frame fractured, platforms damaged, tender tank and frames completely smashed.

Light Engine 1476.—The engine is all right,

Printed copies of the above Report were sent to the Company on the 13th March.

LONDON, BRIGHTON, AND SOUTH COAST RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace,
Whitehall, London, S.W.
9th March, 1909.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in accordance with the Order of the 8th January, the result of my Inquiry into the circumstances under which a collision occurred at about 11.40 a.m. on the 3rd January, 1909, between a light engine and a passenger train near Buxted, on the London, Brighton, and South Coast Railway.

In this case, as a light engine was proceeding from Crowborough towards Buxted in the facing direction on the down line in order to assist a down passenger train, the engine of which had broken down between the two above-named stations, the driver of the light engine failed to bring it to a stop in time, with the result that it ran into the engine of the disabled passenger train. Both engines were derailed, as also were the leading bogies of the first two carriages of the passenger train. Three passengers in the train complained of slight injuries; five of the Company's servants, who were on the light engine, were also injured, one of them somewhat seriously.

The engine of the passenger train was a four-wheels-coupled tank engine, with a pair of trailing wheels; it was standing chimney first at the time of the collision, and it was fitted with the Westinghouse automatic brake working blocks on all the wheels, and with a hand brake working the same blocks.

The train consisted of the following vehicles attached to the engine in the order given.

					Wheels.
Two Third-Class Carriages	...	...	...	...	8
One Third-Class Brake	...	...	...	...	8
Two Composites	...	...	...	...	8
One Third-Class Brake	...	...	...	...	8

All these vehicles were fitted with the Westinghouse automatic brake working blocks on all their wheels.

The light engine was a four-wheels-coupled tank engine with a trailing bogie, and it was running chimney first at the time of the collision; it was fitted with the Westinghouse automatic brake working blocks on the four coupled wheels, and with a hand brake working the same blocks.

The damage to permanent way was very slight; the damage to rolling stock is given in the Appendix.

Description.

This collision occurred between Buxted and Crowborough on the Tunbridge Wells—Brighton branch of the London, Brighton, and South Coast Railway. The line between these two stations is a double one, and its direction is approximately north-east and south-west, the down line (on which this collision took place) lying to the north-west. The point at which the collision occurred was situated 1 mile 36 chains from Buxted Station and 3 miles 24 chains from Crowborough Station.

The gradient for an engine approaching the scene of this accident from Crowborough is a slightly rising one for the first quarter of a mile after leaving that Station, but for the remaining three miles it is a continuously falling one, varying from 1 in 92 to 1 in 75, right up to the site of the collision. The line on the Crowborough side of the point where the collision took place is on a curve and it is in a cutting; the driver of the light engine, when approaching the disabled train, could consequently only have obtained a view of it when he had reached a point situated slightly over 200 yards distant from it.

There are two viaducts on the line between Buxted and Crowborough; one of these, which is known as the Greenhurst Viaduct, is situated a mile from Buxted, and the disabled train had run over it before coming to rest; the point at which the engine came to a stand and at which the collision occurred was situated 704 yards beyond this viaduct. The second viaduct is situated between the site of the collision and Crowborough Station, but its exact position is immaterial to this Inquiry. At a point situated 2 miles 10 chains to the north-east of the site of the collision there commences a tunnel, which is 46 chains in length.

The Company's Rule as to the steps which should be taken under the circumstances which occurred on this occasion is to the following effect:—

Rule 221 (g) "When a train is brought to a stand on any running line, owing to the failure of the engine, or from any other cause, and the guard has gone to the rear to protect it, it may be necessary for the engine coming to the assistance of the train, or for the breakdown van train, to travel on the wrong line from the signal-box in advance. In such a case the engine-driver of the disabled train must write out an authority (on Form B where in use), for the signalman at box in advance to allow the assistant engine, or the breakdown van train, to travel on the wrong line to the disabled train. The fireman of the disabled train must hand the written authority to the signalman, and accompany the assistant engine, or the breakdown van train, to his train, advising the engine-driver where, and under what circumstances, the disabled train is situated, and the signalman must show the authority to the driver before allowing the assistant engine or breakdown van train to proceed on the wrong line. The engine-driver of the disabled train, after giving the order for the assistant engine or the breakdown van train to run on the wrong line, must not allow his train to be moved until the assistant engine or the breakdown van train arrives, unless satisfactory arrangements have been previously made to prevent the assistant engine or the breakdown van train from coming on wrong line, and his fireman has returned and handed the 'wrong line' order back to the engine-driver."

Evidence.

S. Smith, driver, states: I came on duty on the 3rd January at 6.24 a.m. to work till 2 p.m. I came off duty on the previous day at 10.15 p.m. I was in charge of the engine of the 9.40 a.m. passenger train from Brighton to Tunbridge Wells. My engine was a four wheels-coupled tank engine with a pair of trailing wheels. It was fitted with the Westinghouse automatic brake working blocks on all wheels and with a hand brake working the same blocks. The brakes were in good order. We left Brighton punctually at 9.40 a.m. and stopped at Buxted at the usual time; we had no special trouble with the engine up to the time we reached Buxted. The road was in a very greasy state and we had had a little trouble from slipping. Shortly after leaving Buxted a right hand link on my engine broke. Directly I found there was something wrong I brought my engine to a stand. I then got down from the engine to ascertain what had happened and found that my engine was unable to go on. I told the guard that we were broken down and that we should have to stay there until we got another engine and told him to carry out his rules.

I made out a wrong line order form and gave it to my mate. I told him to take it to the station master at Crowborough and ask him to allow the assistant engine to come down. At the same time I gave him two detonators to put down on the line. The fireman proceeded on to Crowborough. I then set to work to get my engine ready to be hauled along the line. It was about 10.40 a.m. when my engine broke down. The first I knew of the light engine coming to my relief was hearing two detonators explode. Previous to hearing the detonators go off I had walked forward myself and put down two detonators about 150 yards ahead of my engine, and after putting these detonators down I went back again to my engine. After hearing the detonators explode I went forward again in order to give the driver of the approaching engine a signal. I went forward up to near where I had previously placed the detonators. The light engine arrived and ran over the detonators exploding them and ran past me. The speed of the engine when it passed me was I estimate between 15 and 20 miles an hour. The driver of it

appeared to be endeavouring to stop it. The brakes were applied to all his wheels but the wheels were skidding. When I first saw the light engine approaching it occurred to me that it was going too fast to stop. I saw the collision occur and I considered the speed of the light engine was still between 10 and 15 miles an hour when the collision occurred. The four front wheels of my engine were lifted up off the rails, the front portion of my engine being held up by the light engine. The brakes were applied to my engine at the time of the collision. I was not injured in any way.

William Hartridge, driver, states: I came on duty on the 3rd January at 6.30 a.m. to work to 2.30 p.m. I came off duty on the previous day at 9.15 p.m. On that morning I received instructions to leave Tunbridge Wells with a light engine to assist a train which had broken down between Crowborough and Buxted. I left Tunbridge Wells at 11.20 a.m. My engine was a four-wheels-coupled tank engine with trailing bogie. It was fitted with the Westinghouse automatic brake working blocks on the four coupled wheels and with a hand brake working the same blocks. My brakes were in perfect order. We reached Crowborough at 11.38 a.m., and at Crowborough my engine was put on to the wrong line, and from there I proceeded to the disabled train on the wrong line, the station master giving me instructions to do so. After my engine was put on to the wrong line the signalman gave me a right away hand signal on that line. The fireman from the disabled engine joined me at Crowborough and accompanied me to the scene of the accident. Fireman Gasson told me that I should find the disabled engine close to the second viaduct, that is the second viaduct we should come to when running from Crowborough. We left Crowborough at 11.43 a.m., the Crowborough station master, fireman Gasson and two fitters being on my engine. To make sure of there being no accident I again asked fireman Gasson if he was sure where he had left the disabled engine. He again told me that it was on the second viaduct. I said do you mean Greenhurst viaduct? He said I do not know the name, but it is the second one from here, that is the one nearest Buxted. Before leaving Crowborough I ascertained that the catch points were set right for me. I proceeded through Crowborough tunnel very cautiously giving a prolonged whistle. When about 600 or 700 yards on the south side of the tunnel I ran over two detonators, and from that point forward the brake was applied occasionally to check the engine. I maintained a fair speed until we passed over two more detonators. The brake was then applied with good force, and when rounding a curve at that point I was absolutely amazed to see the obstruction in front of me. I applied all the power I had, reversed the engine, applied steam and sand, and opened the regulator, but she did not seem to answer to it a bit. The wheels picked up instantly, and instead of reducing the speed I very much think that she gained speed and we collided with the disabled engine. I estimate our speed over the section between the two sets of detonators at from 10 to 15 miles an hour, and I estimate the speed at the time of the collision at about the same figure. The rails on the morning in question were exceptionally greasy. I think that we were from 100 to 150 yards distant from the disabled engine when I first saw it. I did not see it before the second set of detonators went off. At the time we were approaching the disabled train, fireman Gasson was standing at the hand brake and I know he was keeping a look-out. Fireman Gasson said nothing whatever to me on the foot plate after

leaving the tunnel. After passing over the first two detonators I turned off steam and I never turned on steam again until the engine was reversed. I am thoroughly well acquainted with the road on which I was running, and I attribute this accident entirely to my finding the disabled engine 600 yards nearer than I expected it from the information given me by the fireman. The station master showed me the wrong line form before I left Crowborough. I had applied the automatic brake several times before reaching the second set of detonators, and after the second set of detonators it was applied continuously with full force. I did not send my fireman on foot in front of the engine in accordance with Rule No. 223. I did not carry this Rule out as I considered that as I had the fireman of the disabled engine with me I need not do so. If I had had an ordinary clean rail I feel confident I should have stopped my engine in spite of the short warning I had.

H. Bonwick, fireman, states: On the 3rd January I was working the same hours as driver Hartridge, and I was with him on the light engine which went to the relief of the disabled train. We were put on to the wrong line at Crowborough Station, and ran on that line to the disabled train. We received information at Crowborough as to where the disabled train was. Fireman Gasson told me that the disabled train was just this side of the further viaduct. Just on the station side of the tunnel two detonators went off. At this time I did not think we were running more than six or seven miles an hour. Steam was slightly turned on. I do not know when steam was turned off. We then ran over a second set of detonators about 150 yards from the disabled engine. I cannot say what our speed was at that time. I cannot say whether steam was still turned off, as I was in the bunker trimming the coal. Immediately after the second detonators went off I heard the brake applied, but the collision occurred. I think our speed, when the collision occurred, was between 10 and 15 miles an hour. I do not know when the brakes were applied, but just about the time the second detonators went off I heard the noise of the Westinghouse brake being applied. While I was in the bunker fireman Gasson had hold of the hand-brake. The rails were in a very greasy condition. I was not injured in any way.

John Ayling, signalman, Crowborough, states: I have been 16 years in the service of the Company, during 12 of which I have been employed as signalman. I am now on duty in Crowborough signal-box, where I have been stationed for 13 years. I came on duty at 6 a.m. on the 3rd January to work till 9.30 p.m. My box is closed from 8 a.m. to 10 a.m., and from 11 a.m. to 2 p.m. The first I knew of the train having broken down was hearing of it on the telephone from Buxted. The guard of the train told me at the same time on the telephone from Buxted to ask the stationmaster to telegraph to Tunbridge Wells for a relief engine to come to the assistance of his train, and he also told me that the fireman was walking forward to Crowborough with a wrong line order form. About 11.5 a.m. the fireman of the disabled engine arrived at Crowborough and showed me the wrong line order form. At 11.30 a.m. the light engine arrived, and both the fireman of the disabled engine and I showed the driver of the light engine the wrong line order form. At 11.40 a.m. the light engine left on the wrong line.

Mr. L. A. Brightly states: I am stationmaster at Crowborough and have held that appointment

since May, 1908. About 11 a.m. on the 3rd January I received information that the train was broken down between Buxted and Crowborough and that assistance would be needed. I at once telegraphed and telephoned to Tunbridge Wells for the assistance of an engine. I then went into the signal-box and spoke to the guard on the telephone. The fireman then arrived at Crowborough and showed me a wrong line order form. Subsequently the light engine arrived at the station and I proceeded on it to the scene of the accident. I heard the fireman of the disabled train giving information to the driver of the light engine as to where the disabled train was, and I heard mention made of the second viaduct. There seemed to be no misunderstanding between the two men as to where the disabled train was. Soon after passing through the tunnel I heard one or two detonators explode. At that time the light engine was travelling at about 15 miles an hour. I do not think that steam was used after the first detonators went off. To the best of my recollection no more detonators exploded until we got quite close to the train and then another detonator exploded. My impression is that we sighted the disabled train before the second detonator went off. The light engine was then running at I should think from 10 to 15 miles an hour. The driver at once applied the Westinghouse brake harder—I think it was already on at the time. I was surprised at finding the disabled train where it was. I do not know what the fireman of the disabled train was doing at the time we were approaching. The speed of the engine did not appear to decrease after the brake was applied. The rails were very greasy indeed. Before leaving Crowborough I told the driver to proceed with caution as I understood there were some people walking up the line. A good look-out was kept all the time. I cannot say how far we were from the disabled train when I first sighted it. I am not quite clear as to what conversation actually took place between the driver and the fireman as to the position of the disabled train, but the impression on my mind was that the disabled train was near the second viaduct.

Egbert Suter, guard, states: I have been about 28 years in the service of the Company, during 21 of which I have been employed as guard. On the 3rd January I was guard of the 9.40 a.m. train from Brighton to Tunbridge Wells (down train). My train consisted of the following vehicles attached to the engine in the order given:—

- Two third-class bogies (eight wheels),
- One third-class brake bogie (eight wheels),
- Two composite bogies (eight wheels),
- One third-class brake bogie (eight wheels).

All the vehicles were fitted with the Westinghouse automatic brake working blocks on all the wheels. All the brakes appeared to be acting well. The first I knew of anything going wrong with the engine of my train was the train coming to a stand. I got out of my van and went up to the engine and the driver told me that his engine was broken down and that he would have to have assistance. I then told him to send his fireman with a wrong line order and he did so. I then proceeded to the rear of my train to protect it. I then proceeded back to Buxted in order to wire for an engine from Tunbridge Wells. On arrival at Buxted, I wired from the signal-box as well as from the booking office for assistance, and I also called up the signalman at Crowborough on the telephone and told him our position. I also called up the stationmaster in order to remind him about the catch points at Crowborough. I then returned to my train and reached it just about the time the

collision occurred. At the moment I was close by the engine and I actually saw the collision occur. Just as I arrived by my engine the light engine was coming into sight. When I first sighted the light engine there was nothing to make me anticipate that there was likely to be an accident. When the light engine was in sight I noticed that the driver applied the brakes. The wheels appeared at once to skid and the engine appeared to be approaching faster than it was before. I estimate the speed at the time of the collision at from 10 to 12 miles an hour. As far as I could see the engine staff appeared to be making every endeavour to stop their engine.

Henry J. Gasson states: I have been in the service of the Company about 11 years, and have been a fireman about seven years. On the 3rd January I was working with driver S. Smith, and I was working the same hours as he was. I was with him on the engine of the 9.40 a.m. passenger train from Brighton to Tunbridge Wells. I remember our train stopping at Buxted. Up to that time we had only had a little trouble with the engine, owing to it slipping on the greasy road. Shortly after leaving Buxted a link on the engine broke. We came to a stand as quickly as possible, and found out what was broken. I asked my mate for a wrong line form, which was filled in, and I started for Crowborough with two detonators in my hand. I have been on the line between Buxted and Crowborough several times, and am fairly acquainted with it. I know there are two viaducts between Buxted and Crowborough, though I do not know the names of them. When the engine came to a stand we had passed the first viaduct from Buxted; I think it was at a distance of 500 or 600 yards from this viaduct. I walked on towards Crowborough Station, and when I was about 100 yards from the tunnel I put down the two detonators on the line. After I got through the tunnel I saw that the catch points were being protected in the proper way. I saw that there was a man there to attend to the points, so that the relief engine could proceed on the down line. I then went on to the Crowborough signal-box and showed the wrong line order form to the signalman, and he told me to see the stationmaster. I then went to see the stationmaster, who was on the platform coming down to meet me. He seemed to know all about the breakdown, having been in communication with the guard from Buxted. I then waited at Crowborough until the engine arrived from Tunbridge Wells. When the engine arrived the stationmaster showed driver Hartridge the wrong line order form. The engine then crossed over on to the down line. As soon as the engine arrived I had gone on to the footplate, and I was on the engine when it crossed over on to the down line. As soon as I got on the engine driver Hartridge asked me where the disabled train was situated. I told him that we were this side of the first viaduct from Buxted. As soon as we started driver Hartridge asked me to fire the engine, and when we had got a little way he said "Do you mean Greenhurst Viaduct?" I said I did not know the name of the viaduct, but that it was the first one from Buxted. I am quite positive that I did not tell driver Hartridge that he would find the disabled engine *close* to the second viaduct; I only said that he would find it this side of it. I continued firing the engine for a considerable distance down. Soon after we came out of the tunnel, and while I was still firing, we ran over two detonators. These were the two which I had put down. On running over these detonators the speed of the engine was checked very slightly. At the time the engine ran over the detonators its speed was from 10 to

15 miles an hour. When we had got a considerable distance further on I said to fireman Bonwick that I could not get any more coal, and that he would have to get into the bunker before he could get any more. On this he went behind me and got the hammer, and went up on the bunker. Very soon after this happened I saw driver Smith standing by the side of the line and waving his hands. At the same time that I saw driver Smith I saw the disabled train in front of me. I estimated that when I first saw the train we were about 100 yards distant from it. I think, however, that I saw the train as soon as it was possible for me to do so, and I now therefore think that we must have been 200 yards from it when I first sighted it. I think the speed of the engine at the time we sighted the train was quite 15 miles an hour. The brake had been applied occasionally whilst we were running down from the tunnel. The driver appeared to me to have the engine well under control. The driver saw the train in front of us at the same time as I did. I at once applied the hand brake with full force. The driver also applied his brake with full force. The wheels of the engine "picked up," and we ran into the stationary engine at a speed which I estimated at about 20 miles an hour. The stationary engine was standing in the same place that I had left it. I am acquainted with Rule 221 (g), and I quite understood the reason why I was sent forward with the wrong line order form, and I quite understood that part of my duty was to advise the driver of the relief engine as to where my train was situated. It was before we passed through the tunnel that driver Hartridge asked me the second time as to where the train was situated. After that occasion I gave driver Hartridge no further information as to where the train was situated. While we were approaching the train I gave

him no further warning on the matter. I did not do so because, after having given driver Hartridge the information which I had, I felt quite confident that he knew where the disabled train was. When we approached the curve I knew that we were getting near to the train, but we were really nearer to it than I thought we were. We had got there much quicker than I thought. Had the rails not been so greasy I think we should have stopped all right. Just after I saw driver Smith another pair of detonators went off under our engine. I was keeping a look-out at the time we approached the train, and I think I saw it as soon as I could have done. I knew the line was on a falling gradient from the tunnel to the point where the disabled train was standing.

William Hartridge, driver, recalled, states: Whilst I was running down the hill and applying the automatic brake, I found that by means of that brake I was able to check the speed of the train to my satisfaction. When we were leaving Crowborough I knew that the coal in my bunker was very low, and I had asked my fireman, Bonwick, to light a red head-light to put on the front of my engine on account of our being on the wrong road; and while Bonwick was doing that, I asked Gasson to put some coal on the fire, and he did so. This was while we were going through the tunnel. I think that fireman Gasson had finished all the firing he was doing before we came out of the tunnel. After leaving the tunnel I looked across to fireman Gasson two or three times, and on each occasion that I did so he was standing with the hand brake in his hand, keeping a look-out. I think I can say confidently that fireman Gasson did not do any firing after leaving the tunnel. I can positively say that he was not doing any firing within half a mile of the disabled train.

Conclusion.

The circumstances under which this accident occurred were as follows.

The 9.40 a.m. down passenger train from Brighton to Tunbridge Wells left Buxted Station for Crowborough at 10.36 a.m.; when about one mile from Buxted, driver Smith, who was in charge of the engine, noticed that something on his engine was striking the ballast and sleepers, and on stopping the train to ascertain what had gone wrong he found that one of the links was broken. He at once informed guard Suter that the train would have to remain where it was until another engine came to its assistance. Suter forthwith proceeded to the rear of his train and took the necessary steps to protect it; he then proceeded back to Buxted and telegraphed to Crowborough for assistance to be sent. The stationmaster at Crowborough in turn wired to Tunbridge Wells for a light engine, and the latter arrived at Crowborough Station at 11.38 a.m. Meanwhile driver Smith, knowing that the engine to assist him would have to come from Crowborough on the wrong line, made out a wrong line order form on the Form B referred to in the rule quoted above, and gave it to his fireman, Gasson by name, to take forward to Crowborough, so that the engine coming to their assistance might be able to run from Crowborough to the site of the accident on the wrong line; and at the same time he gave him two detonators to put down on the line. Fireman Gasson proceeded accordingly to Crowborough, and he states that he placed the detonators on the line near the south end of the tunnel, *i.e.* two miles ahead of the train, and showed the Wrong Line Order Form to the signalman at Crowborough. After fireman Gasson had started for Crowborough, driver Smith himself walked forward and put down two additional detonators on the line, about 150 yards ahead of his engine. The Company's rules and regulations as to the right procedure to be carried out under the circumstances of the case were therefore strictly adhered to by the staff of the disabled train, and every precaution was taken by them to ensure that assistance should reach them promptly and safely.

On the arrival of the light engine from Tunbridge Wells at Crowborough at 11.38 a.m., driver Hartridge, who was in charge of it, was shown the Wrong Line Order Form, and was instructed to proceed on the down line to the disabled train.

Fireman Gasson joined the light engine at Crowborough, and he states that he at once informed driver Hartridge as to where the disabled train was situated. There is a certain amount of contradiction as to the information given by fireman Gasson to driver Hartridge on that point. Hartridge states that Gasson informed him that he would find the disabled engine close to the second viaduct. Hartridge further states that, to make sure of there being no accident, he subsequently asked Gasson a second time if he was sure as to where he left the disabled engine, and Gasson, he states, told him in reply that it was on the second viaduct. Driver Hartridge therefore maintains that he had every reason to expect that he would find the disabled engine at all events close to the second viaduct. Fireman Gasson, on the other hand, states that in the first instance he merely told Hartridge that the train was "this side of the first viaduct from Buxted," and that when subsequently questioned as to which viaduct he was referring to, he only stated that he did not know the name of the viaduct, but that it was the first one from Buxted. The information given by Gasson was clearly, even by his own account, very vague.

Mr. Brighty, the stationmaster at Crowborough, who accompanied the light engine, heard fireman Gasson giving information to driver Hartridge as to where the train was situated; he heard mention made of the second viaduct, but he is not clear as to exactly what was said about it; the impression made on his mind was, however, that the disabled train was near the second viaduct, and that there was no misunderstanding between the two men as to where it would be found.

The light engine accordingly proceeded on the wrong line from Crowborough towards the disabled train. Shortly after emerging from the tunnel it ran over two detonators, and there appears to be no doubt that at that point steam was turned off and that the engine was then allowed to run by gravity down the falling gradient. Hartridge states that in running down the gradient the automatic brake was frequently applied to check the speed, and he does not think that it was ever in excess of from 10 to 15 miles an hour. Whilst travelling at this speed, and at a distance of about 900 yards from the viaduct, a second set of detonators were exploded under the engine, and then suddenly Hartridge to his surprise sighted the disabled engine. At the time of sighting it Hartridge estimates that his speed was still at from 10 to 15 miles an hour, and that he was not more than 100 to 150 yards distant from it. The automatic brake and sand were at once fully applied, and the engine was reversed and steam turned on, but the wheels immediately skidded, and all witnesses agree that the speed of the engine was practically not reduced at all previous to the actual collision.

Driver Hartridge states that after leaving Crowborough fireman Gasson said nothing at all further to him as to the position of the disabled engine, and Gasson himself admits that he did not give Hartridge any further warning when they were approaching it.

The special reason for fireman Gasson's presence on the relief engine was, as stated in the Rule quoted above, that he should be able to advise the driver of it as to where the disabled train was standing, and Gasson admits that he quite understood that it was with that object that he was there. The information however which he gave to driver Hartridge before leaving Crowborough was vague and misleading, as it certainly conveyed the impression to both driver Hartridge and Mr. Brighty that the disabled train was standing close to the viaduct, whilst as a matter of fact it was 700 yards from it. And in addition to giving this vague information, Gasson further failed in his duty by neglecting to give any warning to Hartridge when they were actually approaching the disabled train, though he ought to have known that they were doing so. The only explanation that he can give for this omission is that he did not think that they were so near to it as they really were. The want of care which Gasson showed in carrying out his duties must, I consider, be regarded as the primary cause of this accident, and the responsibility for it must therefore rest mainly on him.

Driver Hartridge attributes the accident, as far as he was concerned, firstly to the fact of his finding the disabled train 700 yards from the viaduct instead of close to it, as he had been led to expect from fireman Gasson's information; and secondly to the slippery state of the rails, which prevented his stopping his engine after he had sighted the train.

Hartridge was undoubtedly misled by the information given to him by Gasson, and he did not receive from the latter the assistance which he was entitled to expect, but nevertheless he cannot be entirely exonerated from blame in the matter. He knew that he was running on the wrong line, that the gradient was a falling one, and that the rails were greasy; under those conditions his speed should have been restricted so as to ensure his having his engine well under control. But even though he obtained, or at all events should have obtained, a view of the disabled engine when he was 200 yards distant from it, he was unable to bring his engine to a stand in time to avert the collision. Driver

Hartridge did not therefore act with the care that the circumstances called for, and he must therefore bear some of the responsibility for this accident.

The Company gives driver Hartridge an exceedingly good character, and they inform me that he has always proved himself a most zealous servant. It appears therefore to be probable that it was his zeal to bring assistance to the disabled train as quickly as possible which led him to act without sufficient caution.

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

APPENDIX.

Damage to Engines and Rolling Stock.

Train Engine No. 271.—Left-hand quadrant link broken, causing failure; cylinders, castings broken; leading buffer beams and engine frames smashed; trailing buffer beams and engine frames twisted; back tool box completely smashed; all buffers wrenched off and damaged.

Engine No. 385.—Leading buffer beam strained and twisted; both buffer heads broken off.

Coach 1319.—Three end panels of body damaged and stove in; both leading buffer heads wrenched

off; buffer beam damaged; frame of leading bogie frame strained; trailing axle box of leading bogie broken; trailing end of body badly staved in at bottom; both buffers damaged; left-hand leading box of trailing bogie broken; body of coach shifted on frame.

Coach 690.—Leading buffer casting broken; leading buffer beam slightly damaged; right-hand trailing buffer casting broken.

Printed copies of the above Report were sent to the Company on the 8th April.

MIDLAND RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, S.W.,
March 22nd, 1909.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 5th February, the result of my inquiry into the causes of the collision which occurred on the 4th February, between two goods trains, at Sharnbrook on the Midland Railway.

In this case, the 2.55 a.m. (Class B) down goods train from Bedford to Birmingham, on arrival at Sharnbrook, was shunted from the down goods to the up passenger road. About 3.51 a.m. the 10.5 p.m. up express goods train, from Manchester to London, was accepted on the up passenger road, under all clear signals, and a violent head-on collision ensued with the stationary train.

I regret very much to have to report that both the driver and fireman of the Manchester train were killed, and that the guard of the same train was severely injured. The engine driver of the Bedford train also sustained injury.

The Bedford train was drawn by a six-wheels-coupled goods engine (No. 3698) and six-wheeled tender, and comprised 22 loaded four-wheeled waggons and a four-wheeled brake van. The Manchester train was hauled by a four-wheels-coupled engine (No. 388) with leading bogie, and a six-wheeled tender, and consisted of 24 goods waggons or vans with a brake van—all four-wheeled vehicles.

In the first case the engine and tender wheels were fitted with brake blocks worked by the steam brake from the footplate. In the second the engine was fitted with the steam and automatic vacuum brake. The steam brake acted on the four coupled wheels of the engine, and on all six wheels of the tender, and the vacuum brake on the first 18 goods vehicles of the train, both brakes being applied by one handle from the footplate. The last seven vehicles were not fitted with the continuous brake, but there was the usual hand brake on the guard's brake van in rear of both the trains.

The violence of the collision is evidenced by the extensive damage to rolling stock and permanent way, a list of which is given in the Appendix. Both engines, more particularly No. 388, were severely crushed and broken up, whilst twenty waggons were totally destroyed and eleven others badly damaged.