

are called the home and starting signals are in this case represented by the up rear and up junction signals. The *practice*, however, at Bolton appears to be in like cases to stop the train at the up junction signal, and then to allow it to go forward with a caution signal; and this practice is in conformity with No. 55 of the general block working rules. If this practice had been followed in the present instance, the collision would probably not have occurred; and the signalman is certainly to blame for not acting in accordance with it.

The rule of the 20th August 1880, however, is not as clear as it might be with regard to what is meant by *home* and *starting* signals, and I think it should be remodelled.

There was, moreover, no necessity for the Hellifield train to proceed along the platform line beyond the junction signals, until the relief train had started, as it could have done its work at what is called the branch platform, and the signalman showed want of judgment in allowing it to go forward under the circumstances.

As the relief train came to rest on the up platform line at 8.15 or 16 p.m. and the collision did not occur till 8.19 p.m., there would appear to have been want of smartness on the part of shunter Harrison in the transference of the tail lights from one end of the train to the other. Had they been fixed on the tail of the relief train when the Hellifield train was approaching it, it is very possible the collision might have been avoided.

With a continuous break under his control, the driver of the Hellifield train would no doubt have been able to stop in time to have prevented the collision.

The Assistant Secretary,
Railway Department, Board of Trade.

I have, &c.,
C. S. HUTCHINSON,
Major-General, R.E.

Printed copies of the above report were sent to the Company on the 1st December.

LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade, (Railway Department,)
1, Whitehall, London, S.W.,

25th January 1886.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 17th ultimo, the result of my enquiry into the causes of the collision which occurred on the 14th ultimo at Middleton Junction station, on the Lancashire and Yorkshire Railway.

In this case, while the 8.10 a.m. passenger train from Middleton Junction to Rochdale, viâ Oldham, was just starting from the Oldham branch down platform, it was run into at the rear by the engine and carriages which were to form the 8.13 a.m. passenger train from Middleton Junction to Middleton.

Three passengers are returned as having been shaken. The guard of the empty train was injured.

In the 8.10 a.m. train—which consisted of a tank engine and five vehicles, the last a break-van, all the vehicles being fitted with Fay's continuous break—some buffer spindles and panels were damaged. The engine broke away from the train when the collision occurred.

In the other train—which consisted of an eight-wheeled tank engine (fitted with the automatic vacuum break applying to six out of the eight wheels) and six vehicles, the first a break-van coupled to the four in rear of it with Fay's continuous break—no damage was sustained.

No wheels left the rails in either train.

Description.

At Middleton Junction the main line between Manchester and Rochdale is joined by the Oldham Branch, the signal-cabin, in which the levers working all the points and signals are properly interlocked, being in the space between the main and branch lines. The station is on the down side of the junction, the main line and branch each having its own up and down platforms. There are two parallel sidings on the up side of the up main line, to which access is afforded by facing-points on the up branch line, and by trailing points on the down branch line, these points being nearly

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opposite the signal-cabin; there are also safety points connected with these sidings for the protection of the branch line, about 80 yards from the signal-cabin; the van of the 8.10 a.m. train on the down branch line was standing about 105 yards from these safety points. On account of the curve leading from the sidings to the down branch line, it was not easy for a driver coming out of the sidings to see the van until he was getting very close to it. The gradient of the branch along the platform rises towards Oldham at 1 in 176, the curve having a 10-chain radius.

Evidence.

1. *Robert English*, signalman; 25 years in the service, 20 years signalman.—I came on duty in Middleton Junction cabin, where I have been employed for 20 years, at 6 a.m. on the 14th ultimo, for eight hours. The 8.10 a.m. train for Oldham had been standing at the down platform, almost in the position in which it was afterwards run into, since 8 a.m. At 8.6 a.m. the train from Oldham due at 8.4 a.m. arrived at the up platform. After it had done its work, I let the whole train into No. 1 siding. To do this I had to shift No. 27 points, No. 28 lock-bar, and then to lower to No. 30 signal. I put back No. 30 signal after the train had passed into the siding. The engine then proceeded to run round its train by No. 2 siding, and to let it out of No. 2 I had to pull No. 19 points, and also in order to take off No. 9 disc. I had also to set No. 29 for the down road, though there was room for an engine to back into No. 1 siding without coming so far as No. 29 points. This has been the usual practice with regard to light engines running round their trains, although a train may be standing at the time on the down line at the platform. As soon as the engine had cleared No. 19 points, I reversed them to allow it to run back on to its carriages, but after it had done this I did not move back No. 27 (safety points) or No. 29 points, and left No. 9 disc still off for the down branch line. As soon as I had closed No. 19 points I had a goods train arriving at 8.8 a.m. from Manchester on the main down line immediately in front of the down Bradford express due to pass at 8.11 a.m. I shunted this goods train through No. 21 points into the Yorkshire siding. This was done by about 8.11, and I then took off the signals for the down Bradford express, and also for an up Bradford express; having done this I turned round to see where the empty train was, and I saw it coming out of the sidings. The engine at this time was just on No. 29 points, which otherwise I should have shifted, so as to have turned the engine on to the up branch line. I then at once leaned out of the window, and tried by shouting and waving to attract the driver's attention. He did not see or hear me till he passed the cabin window. He was standing on the left side of the engine, but I could not say what he was doing. I did not notice the fireman. On then getting his attention, I shouted out, "Whatever are you doing? See where you are going." His steam was then on; and his speed, I think, was between 12 and 15 miles an hour—faster than a driver would ordinarily proceed under similar circumstances. He then did his best to stop by shutting off steam and reversing his engine. I did not hear the air-break applied. I think the speed with which he struck the 8.10 a.m. train must have been 10 miles an hour. The 8.10 a.m. train was in motion when struck, and had moved forward about 1 or 1½ carriage length. I had taken off the starting signal for the Oldham train at about 8.9 a.m., and the collision occurred about 8.11. It was not my shout that caused the Oldham train to start. I was alone in the cabin at the time. I had no conversation with the driver of the empty train afterwards. The mistake I made was in not putting No. 9 disc back to danger after the engine had come out of the siding, and before setting back on to its train. It is a customary thing to leave the disc off unless a train is standing at the platform, and this practice, combined with my attention being

distracted by shunting the goods train, made me forget to put back the disc to danger. There would have been no difficulty in turning the engine on to the up branch line to enable it to run back on to its carriages. The distance of the driver from me when I began shouting was about 60 yards. The reason I left No. 9 signal off was because the next operation of the empty train would require it to be off. It is not customary to allow an empty train to have the sidings for the down branch line while a down branch train is standing at the platform. The morning was clear and bright.

2. *Samuel Seddon*, platelayer, 5½ years in the service.—I was working on the branch between the cabin and No. 29 points when the empty train was coming out of the sidings. I was on the bottom of the slope, and I could not see the train standing at the platform. Hearing the pointsman shout, attracted my attention, and one of my gang shouted, and seeing the fireman looking out on the off side, I waved my hands to him to stop. When I first heard the signalman shout, the engine was about 30 yards from the cabin, and it was about 10 yards further on when I waved to the fireman. The speed at this time was about as fast as I could run. I saw the fireman begin to turn his break at once. I heard the collision occur, but I could not see it. Steam was on the engine when I shouted, and it seemed some little time in coming off, but it was taken off soon after the engine had passed the cabin. The morning was rather dull and hazy.

3. *James Howarth*, guard; 42 years in the service, 24 years guard.—I was guard of the 8.10 a.m. from Middleton Junction to Oldham on the 14th ultimo. The train consisted of a tank engine and five vehicles, the rear one being a break-van. The break was Fay's, attached to all the vehicles. The train had been standing at the platform from about 8.5 a.m.; it contained, I think, about 100 passengers. It was nearly ready to start, and the passengers nearly all in, but the time not being quite up by my watch I was waiting in my van for the foreman porter's signal to start the train; and hearing a shout from the signalman, I got out of my van and waved a green flag to the driver, who was looking out for a signal, to start, which he at once did; and the train had moved forward about a carriage length when the engine of the empty train overtook and struck the van at a speed of from 8 to 10 miles an hour, the speed of my train being very slow. My engine broke away from its train, the carriages went forward about two carriage lengths and then stopped, the breaks being off, and the engine of the empty train stopped dead on striking. I got into my break at once, and tried to apply it, but it had got damaged, and I was unable to prevent the carriages running back about two carriage lengths. The frame, buffers, and break were all damaged. No wheels were knocked off the road. Some splinters were knocked off the buffer heads. The collision occurred about 8.9½ a.m. I spoke to the driver of the empty train, who said it was a bad job, and that he thought I had gone away. The morning was clear and dry. When I first heard the shouting, the engine was just by the cabin. I could not say whether steam was off or on when I first saw it. From the van door I could just see the clock; this

made the distance between the rear of the van and the cabin window about 34 yards.

4. *James Greenwood*, guard; 20 years in the service, 10 years guard.—I arrived at Middleton Junction with the train from Mumps, due at 8.4 a.m. We arrived punctually. The train consisted of six vehicles, viz., break-van, second-class, first-class, and three third-class; the break power consisting of Fay's break on the break-van and four vehicles next it. I remained in the train when it went into the sidings at about 8.5 a.m. The engine then ran round the train. I remained in the van, and was not looking out for signals. The engine had rejoined the train about 8.10 a.m., and the train then drew out to proceed on to the down branch platform, on its way to the down main platform to form the 8.13 a.m. train to Middleton. I was unaware that anything was going wrong till the collision occurred. I had heard no shouting, but was on the raised part of the elevation looking towards Manchester, just going to put on my break. I got a severe shock and blow in the chest and head, and have been obliged to go on the sick list, after I had kept at work for three days after. Our speed just before the collision was 9 or 10 miles an hour. Nothing passed between me and the driver about the cause of the collision. The morning was not quite clear, and the metals were greasy.

5. *James Tattersall*, driver; 23 years in the service, 12 years driver.—I commenced work at 6.40 a.m. on the 14th. After other short trips, I arrived at Middleton Junction at about 8.4 a.m., right time, with a train from Mumps. It consisted of a tank engine, running coal-bunk first, and six vehicles. The engine was fitted with the automatic vacuum break, applying to six wheels out of eight, the trailing pair having radial axle-boxes. The broken wheels carried a weight of 38 tons, there being 9 tons on the trailing wheels. There is also a hand-break applying to the six leading wheels. The reversing is by wheel. The train was fitted with Fay's break, applying to five out of the six vehicles. At about 8.6 a.m. we took the train into No. 1 siding, No. 30 signal having been lowered. The fireman then uncoupled the engine, and I ran round the train by No. 2 siding, finding No. 9 disc off to allow me to come out of No. 2. The points (No. 19) were then shifted, and I set back on to the carriages, to which I was coupled by the fireman. When I came out of No. 2 siding I had not noticed whether the Oldham train was still standing on the down platform, where it had been standing when I arrived from Mumps. I am not aware whether No. 9 disc was put to danger after I had

come out of No. 2, but it might have been. This signal is sometimes put back, and sometimes not, depending on whether or not the down branch line is occupied. I have never been previously allowed to come out with a train when a train has been standing at the down branch platform; but to allow an empty engine to run out and rejoin its train, it is the regular custom to turn the disc off. Had the signalman wished to turn me on to the up branch line, I should not have refused to come out with a hand signal either with or without a train. On this occasion I am not aware of any reason for my not having come out on to the up branch line, except that it makes the occupation of the up main line rather longer in taking the train to the down main platform before starting for Middleton. After rejoining the train I whistled for the guard to release the break, and also for the disc signal. The signal was off, and seeing this I started, believing that the down platform line was clear, not thinking about the 8.10 a.m. train being there. I had got into a speed of about 10 miles an hour, and had got close to the Manchester end of the cabin, when, just after turning to my mate to tell him to put no more fire on, I looked up and saw the signalman at the window, shouting and waving. I was right under him by this time, and I at once shut off steam, applied the vacuum break (there were 20 inches of vacuum), reversed with the wheel, again applied steam, and then struck the train with a slightly reduced speed. The wheels skidded, and I had steam on against the engine about three yards before striking the other train, which might have been just in motion. We stopped dead on striking the train. Neither I nor the fireman jumped off. Neither of us was hurt. The engine received no damage. No wheels were off the rails either in the engine or train. I did not whistle for the breaks. The morning was a bit dark. I did not look through the right-hand eye-glass, or I might have seen the train. After the fireman had got on to the engine after coupling, he released the hand-break, opened the coal-box door, and was about to put on coals when I stopped him, just before the shout. The fireman saw the platelayers just at the same time that I saw the signalman waving. The speed was no faster than usual in coming out of the sidings.

6. *Thomas Peacock*, fireman; seven years in the service, three years fireman.—I am Tattersall's regular fireman. I agree with his evidence, which has been read over to me. I saw the platelayers just as the driver saw the signalman. Previously I had been breaking coal.

Conclusion.

This collision was caused by the signalman on duty in Middleton Junction cabin having omitted to put back to danger No. 9 disc signal (giving permission to proceed from the sidings to the down branch line), which he had shortly before taken off to allow the engine of the empty train to come out of the sidings, before setting back on to the carriages which were to form the 8.13 a.m. This signal should have been put back to danger, and not have been again taken off until the 8.10 a.m. train, which was standing on the down branch line on the platform, had started on its journey. After rejoining his train, the driver looked ahead, and, seeing No. 9 disc signal off, naturally concluded he was at liberty to proceed to the down branch line preparatory to backing on to the main down line on his way to the main line down platform. He accordingly started from a point about 150 yards from the tail of the 8.10 a.m. train, his view of which was intercepted by the bulk of the boiler from his own (the left) side of the engine till he was nearing the signal-cabin. His fireman, who would have had a better chance of seeing the 8.10 a.m. train from the right side of the engine, was firing as they were approaching it. On nearing the signal-cabin, the speed being about 10 miles an hour, the driver, on looking up from speaking to his fireman about the fire, heard and saw the signalman shouting and waving to him,

his distance from the tail of the train being at this time probably about 60 or 70 yards. He says that he at once shut off steam, put on the vacuum break (applying to the six coupled wheels of the engine), reversed his engine, and re-applied steam, and then struck the van of the 8.10 a.m. train (which had been got into motion and moved forward a few yards in consequence of the shouting) at a slightly reduced speed. A platelayer working near the spot signalled to the fireman directly after the signalman had begun shouting to the driver.

The junction signalman is an experienced man of 20 years service as such, all the time at Middleton Junction. He had been on duty about two hours at the time of the collision. He frankly acknowledges the mistake he made in not putting back to danger disc signal No. 9 after the engine had come out of the sidings, and attributes his not having done so to his attention having been fully occupied with other trains on the main line.

The occurrence of this collision points to the desirability of improved arrangements at Middleton Junction. Direct access from No. 1 siding to the down main line would much simplify the shunting of trains running between Oldham and Rochdale via Middleton Junction; and the lengthening of the siding connected with No. 27 safety points would prevent the necessity of these points being opened to allow of an engine proceeding from one siding to the other. These alterations will, I trust, be at once carried out.

Had the whole of the empty train, and not the engine only, been fitted with the automatic vacuum break, it is probable that the collision would have been prevented or nearly so.

The Assistant Secretary,
Railway Department, Board of Trade.

I have, &c.,
C. S. HURCHINSON,
Major-General, R.E.

Printed copies of the above report were sent to the Company on the 17th February.

LONDON AND NORTH-WESTERN RAILWAY.

Board of Trade, (Railway Department),
1, Whitehall, London, S.W.,
26th August 1885.

SIR,

IN compliance with the instructions contained in the Order of the 4th instant, I have the honour to report, for the information of the Board of Trade, the result of my inquiry into the circumstances which attended the collision that occurred on the 24th ultimo, at Chelford station, on the London and North-Western Railway.

The express passenger train, which is timed to leave London at 6.30 p.m. and Crewe at 10.33 p.m. for Manchester, ran into a fast goods train, which is timed to leave Crewe at 9.10 p.m. for Manchester.

The goods train left Crewe 10 minutes late, and the passenger train left that station eight minutes late. The first train arrived at Chelford about 23 minutes late, and the passenger train arrived there about eight minutes late.

Two passengers are reported as having been slightly injured.

The engine-driver, fireman, and guard of the passenger train were also hurt.

The goods train consisted of an engine and tender, 42 waggons, and a break-van, with the guard in charge at the tail of the train.

The break-van and seven waggons were completely smashed, and five more waggons were damaged.

Twelve waggons were knocked off the rails.

The passenger train consisted of an engine and tender, four passenger coaches, and a break-van at the tail, in which the guard in charge was travelling. The engine and tender were fitted with a steam break, and the rest of the train with the vacuum break, which was worked from the engine.

The leading and driving wheels of the engine of the passenger train left the rails. The smoke-box and the left side of the engine were driven in. The right side framing