

MANCHESTER, SHEFFIELD, AND LINCOLNSHIRE RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.,
December 30th, 1896.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 16th instant, the result of my enquiry into the circumstances attending a collision which occurred on the 9th instant, near Penistone station, on the Manchester, Sheffield, and Lincolnshire Railway.

In this case, the 7.15 a.m. express from London to Manchester over-ran the down home-signals at Huddersfield junction, Penistone, and came into collision, at about 11.7 a.m., with a goods train, which was being drawn across from the down goods to the down main line.

No passengers are reported to have complained of any injury.

The passenger train consisted of two engines, brake-van, composite, third-class, composite, third-class brake, composite, and third-class brake carriages. The engines were both four-wheels-coupled tender engines, with leading bogies, and the train was fitted throughout with the automatic vacuum-brake. The leading engine had foot-plate and foot-step, and gusset-angle underneath foot-plate, damaged.

The goods train consisted of a six-wheels-coupled tender goods engine, 17 loaded waggons, 15 empty waggons, and a brake-van. The passenger engine struck the twelfth waggon from the front, almost broadside, and overturned it, the waggons next in front and in rear respectively being also thrown off the rails. Details of the damage to the waggons is given in an Appendix.

Description.

At Huddersfield junction, Penistone, the Lancashire and Yorkshire railway line to Huddersfield leaves the Manchester, Sheffield, and Lincolnshire main line from Sheffield to Manchester, running here from south-east to north-west, with a curve to the north, the facing-points of the junction being upon the down main line. On the up, or east, side of the main passenger lines there are extensive sidings, and also up and down goods loop lines, the latter extending from Willey Bridge signal-box to Huddersfield junction, a distance of nearly a mile; the trailing-points of the outlet of the down loop, at the latter place, are only a few yards south of the junction facing-points referred to above.

There are various other connections, which need not be described.

The signal-box is on the down, or west, side of the railway, and Barnsley junction signal-box, between Huddersfield junction and Willey Bridge, is about 1,070 yards south-east of the former. From Willey Bridge to Penistone the line is on rising gradients of 1 in 131, 1 in 160, and 1 in 100, and between Huddersfield junction home and inner distant signals the line is on a curve of 30 chains radius.

The only signals which need be referred to are the Huddersfield junction signals, viz.: a post 45 yards south of the signal-box carrying three directing-signals, the centre one of which is for the down main line to Manchester, and the right-hand one, No. 57, for the Lancashire and Yorkshire line to Huddersfield; 135 yards south of the box there is a post with two arms, the left-hand one being the main line home-signal and the right-hand signal, No. 59 (distinguished also by a ring on the arm), referring to the down goods loop; there are also inner and outer distant-signals, the former about 745 yards and the latter 1,100 yards from the box. The view of the home-signals is stated to be very bad at times, owing to smoke from the furnaces of steel works which adjoin the railway.

Evidence.

William Wharldall states: I have been 18 years in the Company's service, 17 years a signalman, and eight years at Huddersfield junction. On December 9th I came on duty at 6 a.m. to work until 2 p.m. At 10.31 a.m. on the above date a goods train for the Lancashire and Yorkshire branch (Huddersfield) arrived on the down goods line, and came to a stand

opposite to No. 59 signal. It had to remain there to allow passenger trains to pass on the up and down main lines for half an hour. I offered the goods train to the Lancashire and Yorkshire box at 10.56, and it was accepted at once, but I did not pull off the signals until the 11 o'clock down passenger train had passed; I then lowered 57 and 59 signals. The

train started all right as far as I could see, but when the engine was passing the box at 11.3, it began to slow up, and came to a stand with the rear vehicle at the trap points on the goods line. The train was then foul of both the up and down main lines. I went to the window to see what was the matter. The driver shouted out that he was unable to go any further. I thought of sending the obstruction signal to Barnsley junction, but just then the signalman there gave me the "Train on line" signal for the 7.15 a.m. express from London to Manchester, which I had already accepted at 11.3. When I accepted it the goods train seemed to be going well, and I expected the latter to be well out of the way before the express arrived at Barnsley junction cabin. The express was not due at Penistone until 11.7. I could do nothing to stop it coming on. I told the driver of engine 392 (the goods) about the passenger train, and he asked me if he was to go ahead again, and I told him yes; but he was unable to do so. I had put signals 57 and 59 back to danger before the goods train came to a stand, and before the express had been given me "On line." All my signals for the express remained at danger. The express ran past my home-signal at danger, and immediately afterwards it struck the goods train. The speed appeared to be moderate. The express had to stop at Penistone station. It was a lazy morning, and the smoke from an engine just behind the goods train was hanging about the place. I had tried to get the goods train pushed back on to the goods line again, but after going three or four waggon lengths it could go no further, being stopped by another goods train on the same line. The driver of the former whistled for the latter to go back, but it did not do so. I lowered No. 59 signal for the second goods train to go forward to assist the first train when the former came to a stand, but I replaced it almost at once.

Henry Nixon states: I have been 23 years in the Company's service, and 13 years a passed driver. On the 9th December I came on duty at 2.45 a.m. to work until about 2.30 p.m., but on account of the accident I was detained until 4 o'clock. My engine, No. 392, is a six-wheels-coupled tender goods engine, fitted with the automatic vacuum-brake, which works blocks on all the wheels of the engine and tender. On the above date I worked the 4 a.m. goods train to Penistone, Lancashire and Yorkshire, yard. I arrived at Huddersfield junction about 10.30 a.m. with 17 loaded and 15 empty trucks and brake-van. About 11 o'clock the signals were lowered for us to come off the down goods line, and I started at once. There was another goods train behind us, and I expect the engine of that train gave me a little assistance at starting. After passing the box we came to a stand, the greasy wheels and heavy mixed train causing the engine wheels to slip. The train appeared to pull very heavy. I had had a little slipping elsewhere, but no great difficulty. The loop at Penistone is an exceptionally bad place to start from. My gauge showed about 120 lbs. of steam at the time. The signalman signalled to me with a green flag to set back, and I whistled to warn the other train that I was doing so. I set back a few waggon lengths, and then I told the signalman I could not get any further (as I was stopped by the other train). I got on the move to go forward again, and had just done so when the express collided with us. The express engine struck the eleventh, twelfth, and thirteenth waggons of my train, and knocked them off the rails, one being overturned.

John Smith states: I have been 26 years in the Company's service, and a driver for 16 years. On the 9th December I came on duty at 4.55 a.m. to work until about 4.45 p.m., but I was delayed by the accident until about 6 o'clock. My engine, No. 622, is a six-wheels-coupled side-tank goods engine, fitted with the automatic vacuum and hand brakes. On the above date I arrived at Huddersfield junction

about 10.58 a.m. with 23 loaded coal waggons and brake-van (my maximum load). There was another goods train in front of me on the down goods line, but it moved away about 11 o'clock. I helped to push that train forward for about 10 waggon lengths, when it got away from me. I came to a stand at the home-signal, which had been put back to danger, and the train in front stopped with the brake-van five or six waggon lengths from my engine. The signalman and the guard of the first goods train signalled me to go forward to help that train. My fireman got down and unhooked, and I went forward. By the time I got to the train it was setting back, but I could not let it come far, as, if it had struck my train, the latter would have been started down the bank. Immediately afterwards the collision with the express took place. I have never been "fast" there myself, but I have heard of it happening before. The signals appeared to be fairly clear that morning. They are sometimes difficult to see until we are close to them. Sometimes very dense smoke comes from the steel works furnaces and hides the signals.

Thomas Ogden states: I have been 33 years in the Company's service, and a driver for 23 years. On the 9th December I came on duty at 4.30 a.m. to work until about 2 p.m. My engine, No. 687, is a four-wheels-coupled tender engine with leading bogie, fitted with the automatic vacuum-brake. I left Retford about 10.10 a.m. with seven vehicles behind the engine. There was a second engine on the train, my engine being the leading one. The leading engineman takes the responsibility of looking out for signals, and controlling the train generally. The other was really the train engine, but as my engine had to return to Penistone it was put in front of the other—to save time—and I then became responsible for the working. Approaching Willey Bridge box all signals were off for us. At Barnsley junction the home and starting signals were "Off," but the distant-signals for Huddersfield junction, which are underneath the home and starting signals respectively, were at danger. I slackened speed between the outer and inner distants, shutting off steam and applying the brake. The speed would be about 35 miles an hour passing the inner distant. I caught a glimpse of Huddersfield junction home-signals, which were at danger. I put my brake hard on before arriving at the home-signal, and my gauge showed 20 inches of vacuum. I saw the home-signal at danger when we were close to it, and I could then see the obstruction ahead for the first time. The rails were very greasy indeed; I have seldom known them worse. I constantly run through Penistone, and I do not think I have been pulled up at Huddersfield junction signals, on the down line, half-a-dozen times in as many years. When the wind does not blow across from the works the signals can be seen well enough. I struck one waggon of the goods train broadside and derailed it, which then pulled one in front and one behind off the rails. In another 10 yards we should have stopped. Neither my mate nor I was hurt at all.

William Ashwith states: I have been 21 years in the Company's service, 14 years a driver. On the 9th December I came on duty at 7.45 a.m. to book off about 7.45 p.m. My engine is No. 565 (similar in all respects to 687). At Retford, engine No. 687 was attached to the train in front of me to run to Penistone, and the driver of the leading engine then took charge of the train. Both of us shut off steam together passing Barnsley junction, and I noticed the automatic brake applied passing Huddersfield junction inner distant-signal, when the speed would be about 40 miles an hour. The brake seemed to act all right then. It was probably applied again before we got to the home-signal. I only saw the latter once, when we were some distance away, and it was then at danger; after that it was hidden by smoke and steam until we were past it. None of our wheels skidded, but the rails were very greasy.

Conclusion.

This collision, the consequences of which were fortunately unimportant, was due to a serious breach of the block telegraph regulations, and, in a lesser degree perhaps, to want of proper care on the part of the driver of the leading engine of the passenger train.

The main facts of the case are as follows:—A goods train came to a stand, on the down goods loop line, opposite to the home-signal at Huddersfield junction at about 10.30 a.m.; after remaining there half-an-hour, the signal was lowered for the train to run out on to the down main line, and the directing-signal (for the Huddersfield branch), 90 yards in front of the home-signal, was pulled off at the same time. The main and loop lines are on a gradient rising towards the junction at 1 in 100, and the goods train was assisted at starting, as far as possible, by a second train just in rear of it. The drivers of both these trains and the signalman say that the train started all right, but before the rear brake-van had got quite clear of the loop line the train stuck fast, foul of both main lines. The signalman, who says he had replaced the two signals at danger when the train-engine had passed them, lowered the loop line home-signal again, for the second train to go to the assistance of the first. The engine of the second train had a full load behind, and it was therefore uncoupled. While this was being done the first train had commenced to set back into the loop line, but was soon stopped by the second engine (by this time detached from its train), the driver of the latter being naturally afraid of his train being set in motion down the hill if the vehicles were struck at all hard. Another attempt was then made to run forward, and the goods train had just been set in motion when it was struck about the centre by the engine of the passenger train, at the fouling-point of the junction between the down goods and down main lines, with the result stated above.

It appears from the evidence that the passenger train had been accepted with "Line clear" by the junction signalman at 11.3, at a time when the main line was occupied by the goods train a few yards inside the home-signal—a distinct departure from the block telegraph regulations, for which no excuse can be admitted. Signalman Wharldall has, I understand, worked in the Huddersfield junction box for eight years with conspicuous success, and it is much to be regretted that on this occasion he should have acted as he did. He says he *thought* the goods train would have been out of the way before the passenger train arrived at the next signal-box, 1,100 yards from his box, which no doubt would have been the case had no hitch occurred; but the block system and regulations are, of course, designed to meet such a contingency as this, and a signalman is not called upon, or permitted, to exercise his judgment as to the circumstances under which a train may, or may not, be accepted.

The passenger train had, as stated above, two engines, engine No. 687 having been attached to the front of the train at Retford, to return to Penistone, the driver of that engine then becoming responsible for the safe working of a train with which he had really nothing to do. Approaching Barnsley junction the home and starting-signals were "off" for the train, but Huddersfield junction outer and inner distant-signals, which are underneath Barnsley junction signals, were at danger; the driver therefore got two intimations of the fact that the line was not then clear through Penistone, viz., about 1,000 yards and 670 yards respectively from the point where the collision occurred, which was about 60 yards inside the home-signal.

Driver Ogden admits having seen the latter signal at danger when some distance away from it, and he says he shut off steam when running between the two distant-signals, his evidence in all material points being confirmed by the driver of the second engine. On a rising gradient of 1 in 100 there could have been no difficulty in pulling the train up, making the fullest possible allowance for greasy rails, had the brakes been applied soon enough; but the driver evidently expected to find the home-signal "off" by the time he got there, as he says he is, practically speaking, never stopped at that signal. When he was quite close to the signal he realised that it was still at danger, and he then saw the goods train ahead of him. He applied his brakes, but was too late to stop at the signal or to prevent the collision. The signal appears to have been obscured at the time by smoke and steam, to a considerable extent at any rate, but driver Ogden knew the place well, and it is somewhat surprising that a man of his experience should have allowed himself to fall into such a trap. Like the signalman, the driver is given the very highest character as a steady, reliable man by his employers.

In view of the evidence recorded above, I think the Company should carefully consider whether by moving the home-signals a little further back they cannot be

kept more clear from smoke and steam than is the case at present. Some loss of valuable space would no doubt be the result, but it is of paramount importance that signals should be placed where drivers can keep them in sight as long as possible. Another point, also deserving of further consideration, is whether the present maximum loads for goods trains, with the various types of engines, allow sufficient margin to ensure the engines being able to draw their trains over the worst portions of each section of the line. It does not seem to have been the first time that difficulty has been experienced in this respect at Ponistone.

The Assistant Secretary,
Railway Department, Board of Trade.

I have, &c.,
G. W. ADDISON,
Lieut.-Col., R.E

A P P E N D I X.

DAMAGE TO ROLLING STOCK.

<p>Wharnciffe and East Gawber waggon, No. 5.— Drawbar cotter broken.</p> <p>Swaithe main waggon, No. 93.—Drawbar, through rod, and buffer-hoop broken; one axle and two axle- guards bent; and one buffer liner and sole end split.</p>	<p>J. Armitage and Sons' waggon, No. 8.—Headstock, sole, side-rail, one axle-box, and lever guard broken; two end muntings damaged; and brake lever, buffer, two axle-guards, and one axle bent.</p>
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Printed copies of the above Report were sent to the Company on the 15th January.

MIDLAND RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.
September 5th, 1896.

Sir,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the instructions contained in the Order of the 24th ultimo, the result of my enquiry into the circumstances attending a collision which occurred on the 18th ultimo, at Nottingham station, on the Midland Railway.

In this case, as a light engine, running tender first, was passing through Nottingham station on its way to the engine shed, west of the station, it was turned through a cross-over road leading from the up middle line to No. 2 platform line, and came into collision with the rear truck of six empty fish trucks, which truck was standing on the up middle line foul of the cross-over road.

The fish truck was thrown off the rails against a cast-iron column supporting the inner ends of the principals of the station roof, and, the column breaking, a portion of the roof about 94 feet by 56 feet 6 inches fell on to the platforms, permanent-way, and fish trucks.

Six persons on the platform, four of whom were passengers, and the assistant station-master, were injured, one of these persons, not a passenger, was very badly hurt, and is, with one of the passengers, still in hospital.

The engine was not damaged, but two of the fish trucks, and two empty carriages were considerably damaged.

A detail of the damage to the rolling-stock, permanent-way, and buildings is given in the Appendix.

Description.

Through Nottingham station, which lies east and west, there are seven lines of rails, the line on the north side being described as the down line, that is, down from Derby to Lincoln, although it is the line used by up main line trains from the North to London.

The lines are as follows, counting from the north side:—

1. No. 1 (down) platform line.
2. Down middle line.
3. Up middle line.
4. No. 2 (up) platform line.
5. No. 3 platform line.
- 6 and 7. Goods lines.