

GREAT SOUTHERN AND WESTERN RAILWAY OF IRELAND.

*Board of Trade,
Railway Department,
Whitehall, 28th May 1870.*

SIR,

IN compliance with the instructions contained in your minute of the 19th 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 accident that occurred on the 14th inst. on the Tralee and Killarney branch of the Great Southern and Western Railway of Ireland.

One passenger was very seriously hurt; ten others have complained of injuries, more or less severe. The breaksman, who was travelling in the last vehicle of the train, was also hurt.

On the day in question, a train, which consisted of an engine and tender, a break van with a guard, 17 loaded waggons, a composite carriage, and a break van with a breaksman, left Tralee for Mallow, at 6.10 p.m.

The vehicles were coupled together in the order given.

The train was ten minutes late in leaving Tralee. It is a goods train, to which a passenger carriage is attached for the convenience of the public; but the train is not inserted as a passenger train in the company's time tables.

When the train got about four miles from Tralee, and was travelling at a speed of about 20 miles an hour, the axle of the last goods waggon but one broke close to the axle box.

The vehicle at the time was ascending an incline of 1 in 170, but the engine of the train had got over the summit, and was descending an incline of 1 in 170. The first marks of any vehicle being off the rails were found about 20 yards to the south of an overbridge, near the 57 $\frac{3}{4}$ mile-post from Mallow. A few yards further on, the marks of two sets of wheels being off the rails were plainly visible on the sleepers, and at 135 yards from the place where the first marks are found on the sleepers the composite carriage remained. It was half turned over on its left side, and very much broken, from having struck violently against the right side of the rock cutting through which it was passing.

Several pieces of the rock were broken off, both ends of the carriage were broken in, and all three axles were bent.

One of the waggon wheels, and the larger portion of the broken axle, appear to have got under the passenger carriage before it reached this point. The

floor of the carriage was much broken, the couplings between it and the waggon next in front of it were broken, and the carriage was turned across the rails, against the side of the rock cutting. Six of the passengers in the front part of the carriage were thrown out by the collision. The five passengers in the back part of the carriage were taken out afterwards.

The first notice that the engine-driver appears to have had of anything being wrong was when he felt the train pulling heavy. The heavy drag was probably caused by the carriage striking the rock, and the two waggons in front of it being off the rails.

When the driver looked round he could not see the passenger carriage, which had parted from the train.

He did his best to stop the train, and called to the guard, who was riding in the break van next to the tender, to put on his break; but the train was on a falling gradient of 1 in 170, and the engine was not brought to a stand till it reached a spot 700 yards from the place where the first marks were found on the sleepers. The wheel, with the piece of the broken axle inside the axle box, remained attached to the waggon, which was the 16th waggon of the train. This waggon, and the one behind it, were the only vehicles in the front part of the train (which separated from the passenger carriage) that got off the rails.

One rail of the permanent way was found bent and cracked. This rail was at the near side, about half-way between the place where the passenger carriage struck the rock and the place where the first marks were found on the sleepers.

The waggon, of which the hind axle gave way, was a covered goods waggon. It weighed about 5 tons 2 cwt., and was intended to carry 5 tons of goods. It was loaded with 3 tons 17 cwt. of butter at the time.

The axle at the point of fracture, which was close to the boss of the wheel, was 4 in. in diameter. There was an old flaw, from $\frac{3}{8}$ ths. to $\frac{1}{2}$ in. deep for the whole circumference, at the place of fracture.

This could not well be detected without taking the axle and wheels off the waggon. The axles are now usually made an inch thicker in diameter.

The accident was caused by the fracture of the hind axle of the 16th waggon of the train.

I have, &c.,
F. H. RICH,
Lieut.-Col. R.E.

*The Secretary,
Board of Trade,
Railway Department.*

Printed copies of the above report were sent to the company on the 15th June.

LANCASHIRE AND YORKSHIRE RAILWAY.

SIR,

Manchester, 28th May 1870.

IN compliance with the instructions contained in your minute of the 12th 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 10th instant at the Miles Platting station on the Lancashire and Yorkshire Railway.

This station is nearly a mile and a half from the Victoria station at Manchester, and contains passenger platforms for the Ashton branch as well as for the main line. The junction of the main line and the branch is on the west or Manchester side of the station, and there are numerous sidings on both sides of the main line west of the junction. The sidings on the south of the main line communicate with the branch and the main line between the junction and

the station. The junction signalman is provided with a cabin, and with levers in the cabin for working his points and signals, and he has the means of communicating by bell with another signalman, stationed in a cabin about 200 yards to the east of him, on the main line up platform. There is a signal for the protection of the main line and the branch from the sidings, which is worked by wire from the cabin of the platform signalman.

On the day in question, the 8.20 a.m. passenger train from Ashton reached Miles Platting in due course, consisting of a tank engine and five carriages, fitted with continuous breaks. The tickets having been collected, and the signal having been lowered for it to start for Manchester, the engine-driver put his train in motion at 8.45 a.m., in the ordinary course. As he was crossing the junction of the sidings above

referred to with the branch lines, he observed that an engine was coming out of the sidings towards him. He had no time to reduce his speed from three or four miles an hour, at which he was travelling, before the engine from the siding struck a first-class carriage, third from his engine, and which was therefore in the middle of his train. The guard, who was riding in a break compartment of the leading carriage, also saw the engine approaching from the siding, but had no opportunity of applying his break, and considered that it would be useless to do so.

The engine from the siding, coming into collision with the leading compartment of the first-class carriage referred to, destroyed that compartment, and slightly damaged the compartment next behind it. The leading end of the framing was also much damaged, and the carriage, being driven back, with those behind it, was detached from the engine and the two carriages which were in front of it. The second-class carriage, second from the engine and in front of the first-class carriage, was grazed, and lost its footsteps, but did not leave the rails. The two last carriages of the train, which were third-class carriages, were not damaged nor thrown off the rails. Five of the passengers have complained of injury, and one of the company's servants, who was travelling as a passenger, was also injured.

The engine which thus came into collision with the passenger train was No. 283, a six-wheel-coupled goods engine. The engine-driver had come on duty that morning at 4.25 a.m., and had run three trips with goods trains between Miles Platting and Ardwick, a distance of two miles. On his return to Miles Platting from the last of these trips, at 8.25, he dropped off his engine as it passed the passenger platform of the Ashton branch, and went into the porter's room to get his breakfast, leaving the engine to run on into the siding in charge of his fireman. The fireman reached the siding in due course, with one waggon attached to (and pushed in front of) the engine. He got off the engine, and coupled up the one waggon to seven other waggons which were standing in the siding. The guard of the goods train walked up to him from the porter's room, and told him, as he says, to "Go on, and come into Sheffield siding." But the guard states that his expression was "Sheffield siding" only, and that he did not intend the fireman to move the engine forward so as to run out of the siding in which he was standing as long as the siding signal was at danger. The guard uncoupled the engine from the waggons, and the fireman moved the engine, tender first, towards the line of the Ashton branch, not being aware that there was a passenger train at the platform, which the station buildings prevented him from seeing. In moving towards the branch line, to get clear of the siding points and back into the Sheffield siding, he saw the passenger train coming out of the station; and he reversed his engine, but too late to stop it, and to prevent the collision from occurring. There was a

hole knocked in the tank of the tender, which was not otherwise damaged.

The signal applying to the siding was at danger when the engine was thus moved out of it towards the branch line. The fireman knew the meaning of this signal, and saw that it was at danger, but he did not consider that he would be disobeying it in only coming through the points which connected the sidings together for the purpose of taking his engine from one siding into another siding; and it was not his intention to proceed across the branch line. He did not know that he might, by opening a pair of slip points which connect the siding with the up branch line, and by taking his engine over those points, have allowed room for his engine to get clear of the other siding points (with a few feet to spare), without fouling the branch line; and the guard had gone down to the Sheffield siding to prepare his train, and was not with the engine when the collision occurred.

The engine-driver was about 70 yards from the engine, and close to the junction cabin, when the fireman set the engine in motion. Seeing that the fireman was doing wrong, he ran towards the engine as fast as he could, calling out "hold on," and he jumped on the engine, and applied the tender-break; but he had hardly done so when the collision occurred.

The engine-driver had been in the company's service for 12 years, as cleaner, fireman, and extra engine-driver, and had been a regular driver since the 1st January 1870. The fireman had been four years in the company's service as a cleaner, and had acted occasionally as a fireman, but he had not been regularly appointed to that duty.

In this case, an acting fireman incautiously moved a goods engine towards the branch line, and in the way of a passenger train, and fouled the main line, in disobedience to a signal which was at danger to prevent the passenger line from being fouled from the siding. An extra precaution might be adopted, to prevent the passenger line from thus being fouled when the signal is at danger, by adding a chock-block or safety points, working with the siding signal in such a way that no engine or waggon could leave the siding while the signal is at danger; but such arrangements would probably, looking to the nature and character of the enormous traffic which is carried on at this station, and the constant shunting which is going on at these sidings, require to be *self-acting* for waggons shunted *into* the sidings; and the remedy really required is the general enlargement and improvement of the accommodation for goods traffic at this important station, so that the shunting of the goods engines and waggons in the sidings may be carried on independently of and without interfering with the passenger lines.

I have, &c.,
H. W. TYLER.

The Secretary,
Railway Department,
Board of Trade.

Printed copies of the above report were sent to the company on the 10th June.

LONDON AND NORTH-WESTERN RAILWAY.

SIR,
1, Whitehall,
12th May 1870.
IN compliance with the instructions contained in your minute of the 13th ultimo, I have now the honour to report, for the information of the Board of Trade, the result of my inquiry into the accident that occurred on the 10th ultimo, near Gray Rigg, on the London and North-western Railway.

The 12.47 a.m. mail train from Carlisle for London left Carlisle at 12.52, five minutes late, on the morning in question, consisting of an engine and tender, a guard's van, six composite and two third-class carriages, a Caledonian post-office (No. 5), and a break-van. The engine-driver ran for 42 miles, from Car-

lisle to Gray Rigg, at his usual speed, and passed Gray Rigg some three or four minutes late, without stopping. He had received, a week previously, in a printed circular from the manager's office, instructions to slacken speed between the 25½ and 26th mile-posts from Lancaster, in consequence of the lifting of the road. He accordingly slackened his speed after passing the Gray Rigg station, from 36 to 25 miles an hour. It was a dark rainy morning, and the engine-driver perceived a little oscillation in his engine shortly after passing the 25½ mile-post. He thought that the road was "rather unusually rough," and, his steam having previously been shut off, he reversed his engine, and applied steam against the engine, with a view to