

goods and mineral trains in front of the fast trains, he appears to have had no instructions whatever.

I need hardly observe that this is a matter which should be immediately rectified. The condition of the line, as regards obstructions caused by the running of slow trains in front of the mail trains and the limited mail trains should no longer be left in doubt, or be subject to the wretched chances of safety displayed in the present instance. It is incumbent upon the Directors of the London and North-Western Company to draw up, and issue, through the Superintendent of the North Union Company, some regulations in regard to the starting of trains from this station, that shall provide against their fast trains being despatched at all, except when the line is not only supposed, but known to be clear in front of them. An extended use of the electric telegraph affords a ready means of attaining this object,—of obtaining increased safety, and of obviating delay; and I should recommend them not to permit their fast night-trains to be started from Preston in future unless the line has been reported previously to be clear to Wigan, or from Wigan until after it has again been reported to be clear to the Preston Junction.

Besides improved regulations of this description, there is also most urgently required an increase of accommodation at the Preston Station. This station is under the management of the Superintendent of the North Union Company, as I have stated, and under the control of a joint committee of the London and North-Western, and Lancashire and Yorkshire Railway Companies. During the whole of this last winter particularly, great inconvenience has been experienced for want of room, for shunting, marshal-

ling, receiving, and despatching the trains. The station has frequently been blocked up for hours together, so that the goods trains have been obliged to be shunted on the main lines, and across them, and have delayed the passenger trains. There is, I am informed, seldom a day in which the passenger trains are not now delayed in this manner. I may add further, as some excuse for the night-inspector, though he does not offer it as an excuse for himself, that if he had thought it expedient to detain the mineral train on the night of the 21st ultimo until after the mail trains had passed, he must either have shunted it to the down main line, or, which would have been more inconvenient, have placed it on the "north siding," in which position it would have prevented the other goods trains from shunting, and would have kept them all at a stand-still until it found an opportunity to get away.

A man so circumstanced was not likely to detain the mineral train at the station longer than could by any possibility be avoided.

This collision has been occasioned, partly by the want of more engine power, to take a heavy train on a slippery night over steep gradients, but principally by a culpable want of proper arrangements and regulations, for providing that a line traversed by fast trains should be kept clear of slow trains at the proper time; and it is desirable that no time should now be lost in organizing suitable measures by means of which this very necessary condition shall in future be fulfilled.

I have, &c.

H. W. TYLER,
Capt. R.E.

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

LONDON AND NORTH-WESTERN RAILWAY.

*Railway Department, Board of Trade,
Whitehall, 5th March 1861.*

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you, for the information of the Directors of the London and North-Western Railway Company, the enclosed copy of the report made by Captain Tyler, R.E., the officer appointed by my Lords to inquire into the circumstances attending the accident which occurred on the 9th ultimo between the Shilton and Stretton stations from a mail train coming into collision with a portion of a goods train.

I am, &c.

JAMES BOOTH.

*The Secretary to the
London and North-Western
Railway Company.*

Chester, 27th February 1861.

SIR,

IN compliance with the instructions contained in your minute of the 20th instant, I have the honour to report, for the information of the Lords of the Committee of Privy Council for Trade, the result of my inquiry into the circumstances which attended the accident, that occurred on the night of the 9th instant, between the Shilton and Stretton stations of the London and North-Western Railway.

The 4 p.m. goods train from Crewe to Rugby left Nuneaton at 11.20, an hour and fifty minutes late, on that night, in consequence of its having been detained at Stafford to allow the fast passenger trains to pass it. It consisted of an engine and tender, 14 loaded and two empty waggons, and a break-van; and it travelled for upwards of six miles at a speed of about 20 miles an hour. When it was within little more than 3 miles of Rugby, the driver felt a sudden jerk in his engine, and, looking round, he saw that one of his waggons was on its side. He brought his train to a stand within a few hundred yards, and, observing that one of his waggons was partly across the down

line, he uncoupled his engine from the train, and ran forward, whistling violently, and waving a red lamp, to warn the driver of the auxiliary mail train, which was more than due to pass in the opposite direction, of the obstruction which thus lay before him.

The breaksman of this goods train was not aware that there was anything wrong with it until he found that it was pulling up. As soon as it came to a stand, he ran back with his hand-lamp and fog-signals, to protect it. When he had proceeded about 200 yards he heard a crash. At 500 yards behind his train, he found a spring from one of the waggons, lying in the intermediate space between the two lines of rails; and at half a mile he stopped a goods train which was following his own train towards Rugby.

The down mail train, due to leave Rugby for Stafford at 11.17, started at 11.29 on the evening in question, and consisted, in the following order, of an engine and tender, a parcels-van, a break-van, a second-class carriage, a first-class carriage, a parcels-van, a second-class carriage, a first-class carriage, and a break-van. It travelled $7\frac{1}{2}$ miles in 16 minutes (or at an average rate of about 27 miles an hour), from the Rugby Station to the scene of the accident. The driver was proceeding at a speed of about 35 miles an hour when he saw the goods engine approaching him on the up line.

Hearing it whistling violently, and noticing a red lamp waved by the driver, he whistled for his guard's breaks, and did his best to stop his train. The gradient was an ascending one of about 1 in 330. The two guards, hearing his whistle, and seeing the goods engine, almost at the same moment, did their best to second his efforts; and he had reduced his speed to 4 or 5 miles an hour before his engine came into collision with the disabled waggon, at a distance which is stated to be 300 or 400 yards from the point at which he was first warned by the goods engine.

The passenger engine knocked the body of one goods waggon to pieces, and stove in the end of a second; and the second- and first-class carriages, which were behind the front break-van, were thrown off the rails, the one with both pairs of wheels, the other with one pair only. There was but one passenger in the latter, who was unhurt; and there were no passengers in the former of these carriages. The two carriages in the hinder, or Manchester portion of the train, contained 6 or 7 passengers; but it appears that no injuries were sustained, either by any of these passengers or by the servants of the Company.

The manner in which the driver of the goods train, Thomas Firbank, a young man who had only acted in that capacity for six months, at once detached his engine from his train, and ran forward to stop the driver of the mail train, is deserving of great praise. The thoughtfulness and energy which he thus displayed, coupled with the promptitude of the driver and guards of the mail train, in pulling up that train, were the means of preventing what would otherwise have been a very serious accident.

Subsequent inspection showed that three of the goods-waggons had left the rails, and a fourth, with one pair of wheels. The first of these four, fifth from the engine, was loaded with bales of stockings, and had been thrown across the down line, on its side. It had lost both of its axles, one having been found under the waggon behind it, and the other, very much bent, but with its wheels unbroken, lying longitudinally on the line between the two waggons. The first waggon was that which was broken to pieces by the engine of the mail train.

The second waggon, which was similarly laden, and was also damaged, was found to have three axles under it, two of its own, and one belonging to the waggon in front of it. The first of these was much bent, but its wheels were complete. The second had lost its left wheel, which was lying in the ditch on the left of the line, with an unfractured tire on it. The third was partially displaced, and slightly bent, but its wheels were unbroken. There was an axle, also, under the third waggon, as it appears, that left the rails, which had lost its right wheel, the boss only remaining on the axle. A number of plates of springs, axle-guards, brasses, and axle-boxes, lay behind the train, and within about a hundred yards of it.

An inspector of the permanent way walked back on the following morning for seven miles, from the scene of the accident, to Nuneaton. The night had been very severe, and the ballast was in a frozen condition; but he traced, for three miles and a half, to the Bulkington Station, marks upon it, every here

and there, on the west of the up'line; and he observed that the chairs had been chipped in different places. He was there shown the tire and spokes of a wheel which had been found in pieces on the north of the station. A waggon-spring, part of an axle-box, and two clip-bolts, were found, also, a hundred yards south of Bulkington.

These and other remnants of broken material were forwarded to the central waggon department of the company, at Earlstown, near the Warrington Junction, where I have this day been to visit them. Two broken portions of a tire were shown to me, $4\frac{1}{2}$ inches wide, and an inch thick in the tread, formed of a crystalline iron, not of the best quality, which were the only remains of the tire in question that could then be found. An axle, also, was with them, having a wheel on one end of it, in a partially fractured state, but surrounded by an unbroken tire, and the boss of a wheel only on the other end, with all the spokes broken short off.

The wheels were of an old pattern, with cast-iron boss, spokes, and rim, of light dimensions, and were ill fitted for railway traffic. I understand that the company have a large number of them, transferred from their southern division, still on hand; and that they are being broken up as fast as their tires wear out, in cases in which they do not fail prematurely.

I am unable to ascertain from the evidence in this case whether the wheel or the tire failed first, but I understand that the failure of these wheels is a sufficiently common occurrence to warrant the belief that one or more of the spokes of the wheel may have been the first to give way. It appears to be certain, at all events, that one of the waggons of the goods train lost a wheel and tire to the north of Bulkington;—that the train ran on for several miles afterwards without any check on this account, and with little perceptible effect upon the permanent way;—that, at length, one of the axles got displaced, and a waggon was thrown on its side;—and that the jerks thus produced warned the driver and fireman of what had occurred, while the displacement of the wheels and axles at length caused the train to be suddenly brought to a stand.

This accident, which was happily, in consequence of the care and prompt action of the servants of the Company, unattended with serious consequences, demonstrates the danger, nevertheless, of employing wheels of an inferior description, even on goods waggons and in goods trains, upon a passenger line.

I have, &c.

The Secretary,
Railway Department,
Board of Trade.

H. W. TYLER,
Capt., R.E.

MANCHESTER, SHEFFIELD, AND LINCOLNSHIRE RAILWAY.

Railway Department, Board of Trade.
Whitehall, 16 February 1861.

SIR,

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you, for the careful consideration of the Directors of the Manchester, Sheffield, and Lincolnshire Railway Company, the enclosed copy of Capt. Tyler's report of his inquiry into the circumstances connected with the accident which occurred on the 14th ult. to a passenger train near Lincoln, from the fracture of a tyre.

I have, &c.

The Secretary to the
Manchester, Sheffield,
and Lincolnshire Railway
Company.

JAMES BOOTH.

SIR,

Whitehall, 5th February 1861.

IN compliance with the instructions contained in your minute of the 18th ultimo, I have the honour to report, for the information of the Lords of the Committee of Privy Council for Trade, the result of my inquiry into the circumstances which attended the

accident that occurred on the 14th ultimo near Lincoln, on the Manchester, Sheffield, and Lincolnshire Railway.

The 5.45 p.m. passenger train left New Holland at 6.11, 26 minutes late, on that day, in consequence of its having been kept waiting for the steamer from Hull, which was delayed by ice in the Humber. It consisted, in the following order, of an engine and tender, three fish-waggons, a cattle-truck, a break-van, a third-, a second-, and a first-class carriage, and a dummy van; and it was due to stop at 14 stations between New Holland and Lincoln. It left Langworth, the last of these stations, $35\frac{1}{4}$ miles from New Holland, and $6\frac{1}{4}$ miles from Lincoln, at 7.55, 24 minutes late; and, after travelling between three and four miles, it entered the Greetwell cutting at a speed of from 25 to 30 miles an hour.

In passing through that cutting the line curves, though not sharply, to the right, and falls towards Lincoln, on a gradient of 1 in 200. The driver was riding on the right and the fireman on the left of the footplate of the engine; and an engine-cleaner was