

The
VIRTUAL MUSEUM
of the
LANCASHIRE & YORKSHIRE RAILWAY

Accident Reports.

18 July 1874

BoT Report into Accident at
Walton Junction.

(5 Pages).

Sir,

Liverpool, August 1st, 1874.

In compliance with the instructions contained in your minute of the 23rd ultimo, 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 18th ultimo, at the Walton junction, on the Lancashire and Yorkshire Railway.

In this case, the 11.10 p.m. goods train from Leeds came into collision, while passing through the Walton junction, with the 4.10 a.m. market train from Ormskirk for Liverpool. The engine of the goods train struck the last carriage of the market train, and two of the carriages were thrown off the rails; the goods engine and five waggons also left the rails. Three passengers have complained of injury, but none of the servants of the company were injured.

General Description.

The Walton junction is three and a half miles on the north of Liverpool, and is the point at which the Manchester, Wigan, and Liverpool line is joined by the Preston, Ormskirk, and Liverpool line. It is an ordinary double junction, with a brick signal-cabin opposite the junction points; and this cabin is fitted up with locking-apparatus by Messrs. Saxby and Farmer, and telegraph-apparatus for working the block-system (through a tunnel on the south of the junction). There is no block-system worked on either line on the north of the junction, but preparations are being made for introducing it shortly. The view of the junction is limited in approaching it from both Wigan and Ormskirk. There is a home signal-post, with two semaphore-arms on it, in the fork on the north of the fouling-point. The home-signal applying to the Ormskirk line is visible for 350 yards, and the distant-signal in the same direction is 643 yards from the cabin, or about 560 yards from the main signal. The Walton-junction station is about 100 yards north of the junction points in the direction of Ormskirk. The Preston Road station is about a quarter of a mile on the north of the junction, on the line towards Wigan. Besides the block instruments for the tunnel on the south of the junction, there are three single-needle instruments for the lines on the north of the junction,—one applying to the Ormskirk section,—one for the Wigan section,—and the third from the Antree junction, which is an intermediate point between Ormskirk and Walton junction. These instruments are used in the daytime for sending messages, for announcing the departure of the trains, and for specifying whether they are passenger or goods trains, in either direction; but they are not used for block purposes, or after 8 p.m. for the Wigan section. There is also a bell communicating with the Preston Road station, which is out of sight of the junction, to warn the servants of the company at that station when a train is approaching, in order that the passengers or others who might have occasion to cross the line may be kept off the rails, and out of the way of such trains.

Evidence.

The market train in question left Ormskirk at 4.10 a.m. punctually, consisting of an engine and tender, eight waggons, four carriages, and a break-van. The break-van and two carriages were coupled together with "Newall's" continuous break. The engine-driver travelled in due course until, as he approached the distant-signal from the Walton junction at a speed of about fifteen miles an hour, he found the distant-signal "off," that is to say, in the usual position of "caution," to invite him to proceed. He continued at

the same speed, until he came in sight of the home-signal, which he found at "danger." He had shut his steam off before coming in sight of the home-signal, and on finding it at "danger" he whistled for the guard's breaks. He was slackening the speed of his train quickly when he saw the home-signals reversed from the junction cabin. He noticed that the signalman raised the arm for the Wigan line, and lowered the arm for the Ormskirk line on which he was travelling. He therefore told his fireman to slack off his break, and he re-filled his steam, and proceeded forward through the junction at a speed of about 10 miles an hour. On looking towards the Wigan line in passing, he saw a train approaching on that line; and he then opened his regulator wider, in order to get through if possible in front of that train; but the two last carriages of his train were caught by the engine of the train from the Wigan line, and were thrown off the rails. He then shut off his steam again, and pulled up his train within about half a dozen yards, as he believes. He states further, that he whistled for the junction distant-signal before he came in sight of it, and that when he came in sight of it it was off at "caution." After the accident the pointsman came to him, when he was on the ground by the side of his engine, and said to him, "Jem, was the signal sticking?" and he replied, "I don't know, but it was off."

The guard of the market train rode in the break-van next behind the waggons, and in front of the carriages. He heard the engine-driver whistle for the breaks when he came in sight of the junction home-signal, but before he (the guard) himself came in sight of it. He applied his break, and saw, after passing under the bridge on the north of the Walton-junction station, that the signals were reversed, as above described. He released his break, and was looking towards the front of the train after doing so, when he felt a drag from behind; and on looking round he saw that the goods train had come into collision with the tail of his own train. As soon as his train had come to a stand, he ran back to see what damage had been done to his carriages, and found four or five passengers complaining of slight injuries. The last two carriages were off the rails with all their wheels, but were not much damaged. The guard states also, that he noticed the arm of the junction distant-signal down, "about at 'caution,'" as he approached it; and that after the collision, in consequence of some remarks made by the passengers to the pointsman, he went back to look at it, and he took back with him as far as the bridge on the north of the Walton-junction station the station-master, and then observed that the distant-signal arm had gone up, but not quite to the position of "danger."

The goods train left Leeds punctually at 11 o'clock on the previous evening, and, after stopping at Wigan for water, approached the Walton junction at about 4.50 a.m., 55 minutes behind time, consisting of an engine and tender, 24 waggons, and a break-van. The engine-driver did not whistle before he came in sight of the distant-signal, but he then opened his whistle, and he saw the signal taken off in answer to it. When he came within sight of the home-signal, which he could see for about a quarter of a mile, he found that it also had been lowered; and when he was within 50 yards or so of that signal he saw it put up again, and the home-signal lowered for the Ormskirk line. He shut off his steam, reversed his engine, and whistled twice for the guard's break, and the fireman applied the tender break. After the signals were reversed he saw the passenger train coming round the curve and passing in front of him; but he was unable to stop his train before his engine struck the last carriage but

one of the passenger train. The goods engine was thrown off the rails with all its wheels, five of the goods waggon were also thrown off the rails, and four of them were badly damaged. The engine-driver was about three or four hundred yards from the distant-signal when it was taken off, and he was then running at a speed of from fifteen to twenty miles an hour.

The signalman who was on duty at the Walton- junction cabin, James Fairclough, has done duty in that cabin for seven years, and has been in the service of the company more than eighteen years. At 4.45 he heard a whistle from the direction of the Wigan line, and he imagined that whistle to come from the Norman- ton fish-train, due at his cabin at about 4.35. It had not been announced by telegraph, because the telegraph is not worked at night, or after 8 p.m. He at once lowered his distant and his home signal for this supposed fish train, and it was just coming round the curve when he heard the whistle from the direction of the other, the Ormskirk line. Seeing that a collision appeared to be almost inevitable, he threw up his signals for the Wigan line, and lowered the home-signal for the Ormskirk line; and he next saw the market train pass his cabin from the Ormskirk line, and the goods-engine strike, as he thought, one carriage at the tail of it. After the accident he went out of his cabin, and told the engine-driver of the market train to go forward and block the line. The engine-driver told him that the distant-signal for the Ormskirk line was "off," and he knew that it must have stuck, but the signal was not visible to him, because the atmosphere was thick and misty. He had found that signal to stick before on several occasions, and had reported it to the station-master several times, and it had as often been attended to. It had not stuck with him in that week, but he had heard from his mate before the accident that it had stuck that week. He did not hear any whistle from the Ormskirk train until he heard the whistle for the breaks on that train. He did not see "William Dagnall" on that morning, nor has he seen him since. The market train was telegraphed to him from Aintree at 4.46, just as he was taking his signals off for what he thought was the fish train. (The only record in the Aintree book of the market train in question is 4.45, at which time it was said to have left Aintree, and the signal is not recorded to have been acknowledged from Walton junction.) He could not, on account of the locking apparatus, lower the distant-signal for the Ormskirk line at the same time that he lowered the distant-signal for the Wigan line, and he was obliged to return the two signals for the Wigan line to "danger," and to push over his points, before he could lower the home-signal on the Ormskirk line. He produces his record-book, from which it appears that he signalled what he believed to be the fish train forward to the cabin south of the Walton junction, and upwards of a mile from it in the direction of the Walton tunnel, at 4.47; and there is a further entry in the book, in the column for "line clear" from the Walton-tunnel cabin, in which there is still a figure 4 with something erased which has been entered after the "4." He made no entry of the message which he states he received from Aintree, announcing the approach of the market train, because he was in the act of lowering his signals for the train from the Wigan line, and the accident occurred immediately afterwards; but he acknowledged at the time the signal so received from Aintree. The station-master at Preston Road, Mr. Cryer, under whose orders the signalman at Walton junction acts, states that the distant-signal from that junction for the Ormskirk line has frequently been reported to him as out of order, and that it was so reported on the 21st June, and during the week before Whitweek. He telegraphed on both those occasions, and on other occasions, to Mr. Johnson, the district engineer, requesting him to have it put in order; and it was repaired on both those occasions, and on all other occasions when he reported it. He was called up at about 4.55 a.m. on the morning of the accident, the

18th of July, and he went at once to the Walton junction cabin. Finding that there were no men back to protect the line, he sent out three men, one to each direction, from the junction. He inquired how the accident had happened, and heard nothing at the time about the signal having stuck. He did not try the signal, but he heard from the Walton junction station-master that he had been to look at the signal, and noticed that it had stuck.

Mr. Cryer adds that a man of the name of "Kennedy" has come from Wigan to repair that signal several times, and that two other men, joiners, the names of whom he does not remember, have come to repair that signal when he has reported it. He does not remember having said to Fairclough, "What have you done again?" But he does remember having said, "What have you been doing, James? I should sooner have expected any man to meet with an accident than you," and he cannot remember what Fairclough said in reply. ["Fairclough" does not himself remember saying anything, but that the signal had stuck, and he could not help it.] A short time afterwards "Fairclough" did say that he had reversed the signals, and Mr. Cryer said, "You should not have done so;" but Mr. Cryer admits that he has had occasion to warn Fairclough two or three times about reversing the signals. Fairclough explains, however, in reference to this subject, that, there being a station on each line on the north of his junction, he has sometimes lowered the signals for one line, and on finding that the engine-driver had whistled for the signals before he was ready to proceed, has then put them up again, and lowered the signals for the other line, the trains on the two lines having been both stopping trains; and that it is on those occasions that Mr. Cryer has warned him not to reverse his signals.

Mr. Cryer was only able during my inquiry to find and produce two copies of telegrams, as follows:—

(1) "July 21st, 1874.

"From Cryer, Preston Road, to Johnson, Wigan.

"E L distant-signal out of order. Send man at once."

(2)

Without date.

"Signals at Walton junction out of order. Send man at once."

The latter, as will be observed, is without date, and the former is dated 21st July,—the accident having happened on the 18th July.

Mr. Cryer, on being recalled, stated further, that on finding that there were three, if not four, packages on the wire, which held the arm down, and prevented it from flying up, he gave directions to the foreman-plotlayer, William Bradshaw, to cut the wire. He does not know whether he did so or not, or how long the arm remained down after the accident.

The superintendent of the railway was good enough to furnish me after the inquiry with copies of four messages from Mr. Cryer to Mr. Johnson, three of which were the same as those which will be found quoted, forth, fifth, and seventh of the messages following Mr. Johnson's evidence, and the fourth of which was as follows:—

"Feb. 23rd, 73.

"From Cryer, Preston Road, to Johnson, Wigan.

"Junction-signal out of order. Send men at once."

The station-master at the Walton-junction station, about 100 yards north of the junction on the Ormskirk line, heard the whistle for the breaks about 4.45 in the morning; and he got up, and looked out of the window, and saw the collision occur. Having dressed himself, he ran downstairs, and called the foreman plotlayer, Berry, who lives next door to him, on the station premises. On reaching the platform he met the guard of the passenger train, who said to him, "Come back with me and look at the distant-signal." He went back with the guard to the bridge on the north of the station, from which he could see the distant-signal, and he noticed that the arm was nearly half-way down to "caution." He got a red flag, and stuck it on to the bridge, and turned the lever of a distant-signal, worked from the station, to "danger,"

to protect the line. He then went to the scene of the collision, and afterwards to the cabin, in which he found two persons who were injured. The signalman was also in the cabin, and appeared very white and trembling. He looked towards the distant-signal, and found that it remained in the same condition, and the lever was at that time in the position of "danger." Another injured person was then brought into the cabin.

On going to the site of the collision, he found that four heavy packages were resting on the wires of the distant-signal, on which they remained for half an hour afterwards. He saw Mr. Cryer, the station-master from the Preston-Road station, coming to the cabin about 10 minutes after he himself had reached it, and he heard him say to the signalman, Fairclough, "What have you been doing again?" and Fairclough replied, "I have been changing my signals;" and Mr. Cryer rejoined, "I have told you of it before, and told you that you would be having a smash if you did not mind." Berry, the foreman platelayer, was also in the cabin at the time when this conversation occurred.

William Berry, the foreman platelayer from Walton junction to beyond Aintree, one mile and three quarters, states he heard the Ormskirk train pass, and heard a noise, and then Mr. Winterbottom, the station-master, called him up. He dressed himself, and went to the scene of the collision, and he heard Mr. Cryer say to the signalman, Fairclough, "I have told you of that trick before;" and Fairclough replied, "If I had not done it, it would have been worse." He has made a general rule of oiling the apparatus at the distant-signal once a fortnight; he has heard of it sticking once or twice a year, and has then oiled it, and it has worked properly. He did not put any extra weight to it, nor has he taken anything off it; he has seen something banging on it, but he does not know what it was. He thoroughly cleaned all the weeds away from the wire, and looked the whole wire through, from the signal to the cabin, after Mr. Walker had complained on the Monday after the accident; he did this work on the Tuesday morning.

Mr. Walker, inspector of the engineering department between Walton junction and Preston, inspected the distant-signal in question about 5 p.m. the same evening, about 12 hours after the accident. He went into the signal-cabin, and asked to have the distant-signal on the Ormskirk line pulled off; but the signalman said he could not then pull it off, because he had a train signalled from the tunnel south of the junction to pass along the main line. He saw the signal worked about five times, and it worked properly, and the arm went up, even though the lever was pushed gently over; and Mr. Walker adds that no alteration had been made in the wire, nor in the apparatus, between the time he examined it and the time of the collision, as far as he is aware. Two days after the accident he went to the signal-post, and he did not find then any portion of a fish-plate, or any other material, attached to the lever of the signal-post. He had seen a piece of fish-plate attached to the signal-lever, and inside the balance-weight, the week before the accident. He does not know who put it there. It was taken off by Thomas Keath, of Wigan, foreman carpenter to the district engineer, and he understands that it was taken off on the Tuesday after the accident. The wire of the signal has been altered since the accident. He has never received any report of the signal sticking, or being otherwise out of order, before the accident. Such reports are generally sent to Mr. Johnson, the district engineer, and not to him. The wire and posts connected with the signal were buried in weeds until after the accident occurred, and the weeds were cleared away by his orders on the Tuesday, three days after the accident. The wire was repaired because three or four of the strands were broken, he believes by something being thrown on to it during the collision. There were also two clumsy splices in the wire, in consequence of its having been previously fractured and repaired, one on each side of

a pulley, and about six feet apart, but not so as to touch at pulley, or a post, or to come within less than two feet of them, either when the signal was pulled off or when it was turned on.

William Hodge, blacksmith in the service of the company at Ormskirk, was employed to repair the junction-points after the accident, in consequence of the rods having become bent, and the points having been out of adjustment. Mr. Walker pointed out to him that the wire had been spliced in two places, and that several of the strands had been broken, and asked him to put in a new piece of wire.

Recalled later, he stated he had since measured the new wire which he put in for the working of the signal, and had found that it was between forty-nine and fifty yards at the end of the wire near the cabin.

William Mercer, signalman at the Walton junction cabin, and mate of Fairclough, has been, he thinks, 11 years doing duty at that cabin, and altogether about 21 years in the company's service. He has had frequent occasion to make complaint of the distant-signal from Walton junction on the Ormskirk line,—at least four times,—and has seen Mr. Cryer write in his cabin messages to be sent by the telegraph-boy from the cabin on each occasion, but he cannot give the dates of these reports. One time he remembers was about Whitweek, and once since the accident. The signal had stuck on each occasion when he reported it, and after each report the men oiled it, and repaired it, and made it work properly; and he remembers some men coming before Whitweek, and his pointing out to them that there was something the matter with the locking frame as well as the working of the signal, and they repaired them; but he does not know whether it was in consequence of his complaint on that occasion.

Mercer states further that the signal-arm flew up to "danger" about 6.30 a.m. After fixing the arm down he released the adjusting screw and shook the wire, and so caused the arm to go to "danger."

Charles Stockton has also been doing duty at the Walton junction cabin for two years last March, and has several times himself reported the distant-signal towards Ormskirk to Mr. Cryer. He reported it altogether about four or five times before the accident. The arm would not go up when the lever was worked in the cabin, and sometimes it would not come off. He has not had to report any other of the signals from this cabin. He has seen Mr. Cryer send telegrams from the cabin complaining of that signal about three times; and he told Mr. Johnson in the cabin that it would neither come off to the right angle nor go on. [Mr. Johnson states, however, that this signalman informed him in the cabin that the signal went on, but he could not get it properly off.]

Charles Stockton further states that about twelve hours after the accident the signal was tested, and worked perfectly well, and went up to "danger," but Mr. Maddock complained that it did not come off properly.

Joseph Mercer, the telegraph-boy employed in the cabin, and the son of the signalman of the same name, has often heard that this distant-signal would not work properly. It used to stick, and sometimes it would come off and would not go on, and at other times it would not come off. He thinks he has sent telegraph messages about six times from Mr. Cryer to Mr. Johnson in regard to this signal. He has a drawer to put the messages into, and he has put them into the drawer, but there is no lock to it, and they have possibly been lost. He is only able to find copies of two of the messages. He has taken notes from the pointsman—from all of them—to Mr. Cryer about that signal, he does not know how often. A few of the notes have been about the home-signal, but a good many about the distant-signal. He cannot remember how many, but he thinks they were for the most part about that distant-signal. He has often seen it sticking, and seen the pointsman go outside to pull the wire, to make it go on properly. Before the accident

he has frequently heard the pointsmen speaking with one another and to Mr. Cryer about that signal. He does not remember when he took the last note, but it was about a month before the accident that he sent the last telegraph-message about that signal.

Quinton Kennedy, signal-fitter and repairer for 20 years in the company's service, has been three times sent to the Walton junction, but never to repair the distant-signal towards Ormskirk. He has heard that it would not go off or on, but he did not consider it to belong to his district. He has been twice at it, and the man that goes along with him (George Foster) has been three times at it. He has made new splices in the wires near the cabin, and has made the wire stretchers work. He has put springs to the levers in the cabin, but does not know that they belonged to that signal. He took off the portion of the fish-plate attached to the lever on the signal-post the last time he went to oil that distant-signal.

George Foster, a labourer in the company's service, accompanies Kennedy when he goes out repairing signals. He has been "dozens of times" to the Walton junction cabin, but he cannot say when; he thinks he was there about three months ago. Mr. Cryer and the signalmen have complained of the Ormskirk distant-signal not working properly, and have asked him to look over it. He did not see the fish-plate there that he remembers, and he did not see Kennedy remove it. He thinks he has been two or three times in the last eight months to the Ormskirk distant-signal. When he has been near there about any business, they have asked him to repair it. There have been more complaints about that signal than about any other signal.

Ralph Astley, a labourer with the signal-fitters for about seven years, has been twice at the Walton junction cabin within the last twelve months. The first time he took the arm of the distant-signal out, and put fresh plates in, to make it work properly, and he left it working "all right." In September the signal would not come off because the signal-wire was too long. He cut the signal-wire and spliced it, and again left it working properly. Mr. Johnson sent him there both times.

Richard Hilton, carpenter at Wigan, in the Lancashire and Yorkshire Company's service, has been sent to Walton junction, but has never had anything to do with repairing the Ormskirk distant-signal, and he had not heard any complaints of that signal before the accident.

Thomas Keith, a foreman carpenter at Wigan, in the Lancashire and Yorkshire Company's service, was sent to Walton junction on the 21st of July, when the distant-signal was said to have stuck; and on that occasion there was a mistake about the message. The pointsman, Fairclough, told him that it had been sticking. He took the portion of the fish-plate off the lever at the signal-post, and pushed the balance-weight further towards the end of the lever, to compensate, as he thought, for the weight he had taken off.

Mr. John Alfred Johnson, assistant district engineer, states that he was at the scene of the accident at 8.10 a.m., about three hours after it occurred. He saw one box fairly on the wire, about three or four feet long by ten feet wide, and one foot ten inches high; and he has since been told that there were woollen goods in it. He saw some other bales near the wire, but he cannot say whether they were impeding the action of the wire. The arm of the signal could not go up at 8 a.m. because the package was on the wire. [Mercer states, it will be remembered, that he caused the arm to fly to "danger" at 6.30 a.m.] The package remained on the wire until some time in the forenoon, but he does not think the signal was down all the time. He examined the wire with Mr. Maddock on the ground two days after the accident, and found that the signal worked properly—that he could move the wire with his fingers wherever, he tried it. The wire was nearly cut through in one place, but he did not know by what, and one of the posts was a little loose, he supposes from something having

knocked against it. He went to the top of the signal-post, and examined the arm, but he could not see anything wrong with it. He saw a piece of fish-plate on the lever.

Mr. Johnson explains, however, that he did not intend to say that the signal was actually off when he arrived at 8.30, but that it could not have gone on, because the package was on the wire. He looked at the signal, and saw it on, at 8.30, or thereabouts.

The following are the only messages which Mr. Johnson is able to find in regard to the signals at Walton junction. Mr. Johnson also produces a list of the men who have been sent to repair the signal. Copy attached.

"Nov. 6th, 1872.

"From Cryer, Preston Road, to Johnson, Wigan.

"Saxby's signal frame at Walton junction out of order. Send Kennedy first train, and oblige."

"Sept. 13th, 1873.

"From Cryer, Preston Road, to Johnson, Wigan.

"Send a man early to look at E L distant-signal; will not work."

"Augst. 20th, 1873.

"From Cryer, Preston Road, to Johnson, Wigan.

"Send a man to our signals at once; out of order; also Walton junction signal broken."

"7.8/73.

"From Cryer, Preston Road, to Johnson, Wigan.

"E L distant-signal will not work. Send men at once."

"Jan'y. 1st, 1874.

"From Cryer, Preston Road, to Johnson, Wigan.

"Junction signals no gas. Send man at once, or humps to fit signals."

"May 12th, 1874.

"From Cryer, Preston Road, to Johnson, Wigan.

"Please send a man to look at the frame at the Walton junction cabin; one of the levers out of order. Your early attention will oblige."

"July 21st, 1874.

"From Cryer, Preston Road, to Johnson, Wigan.

"E L distant-signal out of order. Send man at once."

Conclusion.

This collision appears, then, to have resulted from the defective working of the distant-signal on the Ormskirk line from the Walton junction. I have thought it only right, in justice to all the parties concerned, to quote at considerable length the evidence bearing on this subject. Looking to that evidence as a whole, there can be no doubt that the working of that signal had frequently been complained of before the accident; that, in compliance with the requisitions of the Preston Road station-master, men had several times been sent to repair it; and that a portion of a fish-plate was hanging tied to the lever near the balance-weight (though there is no evidence to show by whom it was so attached), for the purpose of causing the arm the more readily to fly up to the position of "danger," at the time of the accident. After the accident, about 50 extra yards of new wire had been added, and two "clumsy splices" removed, the grass and weeds had been cleared away from the posts, the portion of fish-plate had been removed, the balance-weight had been shifted, and the signal had been made to work properly, before I visited the spot. But I found, even then, that the wire dragged on the ground as it passed under a board before entering the cabin. It is of the utmost importance to the safety of the traffic that the signals should be maintained in thoroughly efficient working order, and especially the distant-signals. They are the only means by which the signalmen can warn the engine-drivers, whilst they are still at a distance from them, of impending danger, and they are the indications by which the engine-drivers are guided. A distant-signal arm which will not fly to "danger" affords false security to a signalman, and becomes a trap to an engine-driver, leading him forward with his train into imminent danger. It is most

fortunate that the consequences were not more serious on the present occasion; and the Lancashire and Yorkshire Company would do well to take advantage of the lesson which this collision affords, of the apparent necessity for placing their signal-repairing arrangements in this district in a more perfect condition. There was nothing peculiar in regard to this distant-signal, and no reason why it should require to be so frequently reported and adjusted, except the want of more care and attention to place it in a more efficient condition.

As regards the other servants of the company implicated in this accident, no blame can be attached to any of them. The signalman could not have pulled his lever over, so as to lower the Ormskirk distant-signal, when his points were over and his signals were down for the train from Wigan and Manchester. He did what he could towards avoiding the collision, and probably acted for the best, under the circumstances, in reversing his signals—though this is always a dangerous operation—when he found the collision apparently inevitable; and if he had not done so, the collision might have been attended with more

serious results. The engine-drivers of both the trains simply obeyed such signals as they received, and they do not appear to have shown any want of caution.

This junction being very awkwardly situated, approached on curves in both directions from the north, and with a limited view along each line, the question arises whether the telegraph might not properly be employed, so as to prevent any two trains which might come into collision with one another from approaching it at the same time. But it is suggested on the part of the company that serious delay might thus be caused to the heavy traffic which passes through the junction, and that it would be better to issue a general order to the effect that all trains should approach it at a speed not exceeding five miles an hour. The better to secure obedience to this order, boards might be erected on posts, in a convenient position on each line on the north of the junction, with "five miles an hour" marked in large letters upon them.

I have, &c.

H. W. TYLER.

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

LANCASHIRE AND YORKSHIRE RAILWAY.

REPAIRS done to the Walton Junction since October 1872.

Date.	Name.	Occupation.	Nature of Repairs.
17th Oct. 1872	Q. Kennedy	Signal Fitter	Repairing and overhauling,—left in good order.
6th Nov. 1872	"	"	Repairing signal frame,—left in good order.
24th Apl. 1873	"	"	Repairing and overhauling,—left in good order.
July 1873	R. Astley	Asst. Signal Fitter	Repairing and overhauling,—left in good order.
8th Aug. 1873	J. Winnard	Foreman Joiner	Made into good working order.
20th Aug. 1873	"	"	Wire pieced,—left in good order.
Sept. 1873	R. Astley	Asst. Signal Fitter	Repairing and overhauling,—left in good order.
13th Sept. 1873	J. Winnard	Foreman Joiner	Repairing and overhauling,—left in good order.
1st Jan. 1874	W. Marsh	Gas Fitter	Repairing gas piping and lamp,—left in good order.
12th Feb. 1874	Q. Kennedy	Signal Fitter	Repairing wires.
10th April 1874	Hilton and Bentley	Joiner and Labourer	One night found the locking out of order and put it right.
13th May 1874	Q. Kennedy	Signal Fitter	Repairing lever in frame.

Printed copies of the above report were sent to the Company.

LONDON AND NORTH-WESTERN RAILWAY.

Sir, *Wiesbaden, 24th July 1874.*

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the instructions contained in your minute of the 21st May, the result of my inquiry into the circumstances which attended the accident that occurred to a passenger train on the 16th May at Knucklas station on the Central Wales section of the London and North-Western Railway, on which occasion three passengers and one servant of the company are returned as having been bruised or shaken, but no one appears to have been seriously hurt.

There is a steep incline of 1 in 60 for four miles 24.6 chains from Knighton station, rising towards Llandrindon on the Central Wales Line of Railway, and Knucklas station is situated on this incline, and about 2½ miles from Knighton station.

It appears from the evidence that, on the day in question, the 12h. 25m. p.m. up passenger train from Swansea to the Craven Arms station consisted of an engine and tender, one third-class carriage, three composites,

one van, one composite, and one van, making up seven vehicles altogether, arranged in the order in which they are here written, with two guards, left Penybont station, 15 miles 78 chains from Knighton at 3h. 35m. p.m. according to the engine-driver, at 3h. 28m. and 3h. 29m. according to the two guards, and at 3h. 39m. p.m. according to the signalman on duty, the proper time for leaving being at 3h. 20m. p.m.; and, as it was approaching Knucklas station on a curve to the left after passing over a high viaduct, the driver, who was looking back from the left side of the engine on the inside of the curve, observed the left trailing wheels of the third vehicle from the tender (a composite carriage) drop inside the left rail; and he stated that he immediately reversed the engine, sounded the whistle for the guards to break, caused the tender to stop, and did all in his power to stop. He also stated that he was running about 25 miles an hour down the incline, without steam, and having the tender break partially on to steady the train.

As soon as the train had been stopped, he went