

The
VIRTUAL MUSEUM
of the
LANCASHIRE & YORKSHIRE RAILWAY

Accident Reports.

15 October 1877

BoT Report into Accident at
Radcliffe Bridge.

(4 Pages).

have seen him going to the same public-house on other occasions, when we were getting the roadside goods out, at different times; I considered it wrong but did not report it; I am quite positive I have not seen other men go.

William Morrey, station-master at Bala states: I was on duty on the 21st December, when the 1.15 p.m. ex Dolgelly arrived; I was in the goods office. I at once started to walk to the passenger station, about 150 yards, for the purpose of giving the train staff ticket. Whilst writing out the ticket I heard the engine whistle, and directly after I went out with the ticket to give it to the engineman. By the time I got up to him he had started from the water-column and had got 8 or 10 yards when I gave him the ticket. I followed on towards the goods warehouse, and when I got opposite the pointsman's box, Hugh Roberts, the permanent way ganger, came running down the steps and called out, "Look Mr. Morrey, at the rate that train is running into the yard,—if he don't stop soon there will be a smash;" almost immediately we heard a crash, and ran at once to the spot, when I saw that the engine and several trucks had run off at the throw-point and were at the bottom of the bank; I also saw Guard Evan Jones lying at the bottom of the bank, and the engineman and fireman walking to and fro; two or three men removed the guard to the cottage near the station, and I telegraphed for the accident van. I have been station-master at Bala three months. I have been nine years in the company's service. I observed Gilbert on his engine as I passed him on my way from the goods office to the station. I did not observe that there was anything wrong with him as I passed him or when I gave him the ticket, although it was singular his starting before I gave him the ticket, but when I saw him after the accident I did not consider

him sober. I think the fireman was sober. The guard had to be supported to the cottage as he was hurt, but as far as I could judge he was sober. I only heard the whistling on one occasion, but whether one or more whistles I cannot say. It is not usual for engine-drivers to start without the staff or a ticket if they are going on the main line, but they would go into the yard to do work there without the staff or ticket.

Conclusion.

The accident was caused by the misconduct of the engine-driver in charge of the goods train. This man had left his engine and had been drinking at several stations on the line, so that on leaving Bala on the up journey he appears to have been in an unfit state to take charge of his train. The station-master and other persons at the station only saw him standing on his engine, and did not perceive that he was the worse for liquor until after the accident happened, but he appears to have been so unconscious of what he was doing, that he started from the station without having previously received the staff ticket authorising him to do so; and he then whistled to go into the siding without having any intention or requirement to do so. Neither the driver, fireman, or the guard, who were travelling on the engine, observed that they were running along the siding instead of on the main-line, until the engine ran through the safety points and tumbled over the bank at the side of the line. Although the state of the railway bank had nothing to do with the accident, I would, however, recommend that it should be widened from the safety points to the cabin at the east end of Bala station.

I have, &c.,

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

F. H. RICH,
Colonel R.E.

Printed copies of the above report were sent to the Company on the 2nd February.

LANCASHIRE AND YORKSHIRE RAILWAY.

Sir, *Manchester, 26th November 1877.*

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 15th instant, the result of my inquiry into the circumstances connected with the collision which occurred on the 13th instant, at Radcliffe Bridge station, near Bury, on the Lancashire and Yorkshire Railway.

In this case, during a dense fog, the 8.15 p.m. up fast passenger train from Skipton to Manchester came into collision with the engine of an up goods train at a spot 650 yards inside the Radcliffe Bridge up distant-signal, and 214 yards inside the up home-signal, which signals were both at danger against the passenger train.

Seven passengers are reported to have been injured. The driver, fireman, and guard of the passenger train, and a timekeeper riding in the guard's van were also injured.

In the passenger train, the engine had its inside framing and one of its axles bent, its cylinder broken, break gear damaged, and buffers and buffer-beam broken. One third-class carriage had its end stove in and several buffers were broken.

The goods engine had both its cylinder covers and pistons broken, the end framing bent, the smoke-box stove in, sand-boxes knocked off, and buffer-plank and buffers broken.

Description.

Radcliffe Bridge station is situated about 2½ miles on the Manchester side of Bury, and as regards the up line, and as bearing on the present collision, is provided with a home and distant-signal; the latter of these is on the same post as the up starting-signal

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from Radcliffe goods yard, and is 436 yards distant from the up home-signal. There are two cross-over roads at the station, and sidings joining the down line. The levers working the points and signals are concentrated, and properly interlocked in a raised cabin situated on the down platform, 220 yards on the Manchester side of the up home-signal. The up line falls from Bury, on gradients of 1 in 132 for 1 mile 9 chains, then at 1 in 532 for 53 chains, and then at 1 in 227 for 39 chains, which latter ceases at a spot close to the Radcliffe Bridge up distant-signal; it then rises on a gradient of 1 in 264 for 616 yards, as far as Radcliffe Bridge station. The collision occurred nearly opposite the signal-cabin, or about 650 yards inside the up distant-signal, and 214 yards inside the home-signal. The line is worked on the absolute block system, the next block station to Radcliffe Bridge being (towards Bury) Radcliffe goods yard, distant about 1,140 yards, and (towards Manchester) Outwood, distant about half a mile.

Evidence.

1. *Adam Butterworth*, signalman about 17½ years, six months at Radcliffe goods yard, which is nearly two miles from Bury.—I came on duty at 6 p.m. for a 12 hours shift. I work absolute block in both directions. The up goods train passed my cabin at 9.43 p.m., and at 9.46 I received the "Be ready" for the express from Bank Top. The goods train was cleared at 9.47, and at 9.47 I received the "On line" for the express, just after I had given Radcliffe Bridge the "Be ready" for the express, on receiving which Radcliffe Bridge gave me "Clear" for the goods. The express passed at 9.48. I had just time to lower my signals for the express after getting

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"Clear" for the goods train. The express passed my cabin at the usual speed of between 40 and 50 miles an hour. When the express passed I could not see my starting-signal, the fog being too thick, but I could just see the back light of my home-signal, which is on the up side of the line and about 20 yards north of my cabin. I could see that there were two men on the engine, and I could see the red lights at the tail of the train. The goods train had arrived at 9.36, and had put off 9 or 10 waggons into a loop on the up side of the line. The express is due to pass at 9.39. I had received no intimation of the approach of the express except the "Be ready" from Bank Top, about a mile distant. I had no orders as to shunting the goods train, the express being irregular in its running. I do not work my signals in conjunction with those at Radcliffe Bridge, either in case of fog or otherwise. I have no disc in my cabin working with the Radcliffe Bridge distant-signal. I knew that the goods train had a waggon of cattle to put off at Radcliffe Bridge; the train could have been shunted at Radcliffe Bridge on to the down road; the down passenger train due at 9.40 having passed at 9.41. The last signal that passed between me and the Radcliffe Bridge signalman was his putting the block semaphore up in my cabin on my giving him the "On line" signal for the express at 9.48. I heard the break whistle two or three times from the express when the train was between the distant and home signals. I heard the noise of the collision between 9.49 and 9.50. The fog had been on thick for half an hour. No fog signalmen were out. It continued till 2 or 3 a.m., but no fog signalmen came on. It was a damp night.

2. *Nicholas Corcoran*, signalman seven months, six months at Radcliffe Bridge, 2½ years previously with the Manchester, Sheffield, and Lincolnshire Company at Ardwick as shunter, and before this 5½ years with the Lancashire and Yorkshire Company as van boy, platform porter, and horse-van man at Ashton.—I came on duty at 6 p.m. for a 12 hours shift. I got the "Be ready" for the goods train at 9.42, and "On line" at 9.43, and it arrived at 9.45. The train stopped at the home-signal, which was at danger in consequence of my having got the signal from Outwood that the previous up train had passed without a tail light, which had been right when it passed me. I could just see a glimmer of the back light of the top lamp of the home-signal, and I shook the signal to indicate to the driver that he might pass it. He had before this given one long whistle and two short ones, meaning that he wanted to cross the road. He came on to the up crossing, no communication passing between me and the driver or guard as the train passed. I opened the up crossing and the van and waggon were then kicked through it on to the down road. I then closed the crossing and called the driver with a white light to come back along the up road, and opened the lower crossing for him to go across to the down line. He was about 10 yards past my cabin towards Bury when the collision occurred, between 9.47 and 9.48. My signals were all necessarily at danger on account of the crossing being open. I had received the "Be ready" for the passenger train at 9.47, and was about closing the top crossing when I received it. This was the last signal I received from Radcliffe goods yard for the up line till 2.5 a.m. The express was not given "On line," and the last signal I sent was the acknowledgment of this "Be ready." The previous down train had passed at 9.39, and was cleared at 9.41. I was not at liberty to give "Line clear" to Radcliffe goods yard till the goods train was either clear on the down line or in motion on the up line past my up starting-signal. Having to stop the express to warn it about the absence of a tail light on the previous train, I did not think it mattered through which crossing I turned the goods engine. I had no notion at all that the express would pass Radcliffe goods yard when I had the lower crossing open for the goods engine. I positively declare that

I never gave "Line clear" for the goods train. I had entered the "On line" signal for the express as 9.48, that being the time at which I expected it to be given "On line." I had not given the "Be ready" for it to Outwood. I altered the 8 of the 48 soon after I had entered it, and before the collision. I first heard a long break whistle from the up fast train, when it was between the distant and home-signals, when the goods engine was about opposite my cabin. I did not do anything myself, but there were two porters on the platform, one of whom ran to the goods engine and the other towards the express. I could not see the light of the starting-signal. I first noticed it was foggy after the up train had passed at 9.27, and then I could just see my starting-signal. At 9.30 I received a signal from Outwood of a train having passed without a tail lamp. I was alone in the cabin. I was under notice to leave the Company's service at the time of the collision in consequence of irregularity of working between me and Radcliffe goods yard. I left the Company's service on the 22nd. It was not Butterworth and me who had been disagreeing, but his mate. I had given the "Be ready" for the goods train to Outwood at 9.43, and cancelled the signal at 9.47.

NOTE.—The Outwood signalman had received no signal relating to the express.

3. *George Critchley*, porter at Radcliffe Bridge 4½ years.—I was on the up platform when the goods train arrived. It at once went up to the crossing at the up end of the station. As the engine was returning from the top crossing I heard the express coming giving the break whistle. I first gave the goods engine a red light and called to the driver that the express was coming, and then ran to meet the express, showing a red light; seeing that the breaks were on I came back to ascertain what the goods engine was about, and found the driver was just moving backwards. The express engine passed me too fast for me to have jumped on it. I did not notice whether the guards breaks were on. I could see the light of the down starting-signal from a short distance this side of the bridge (70 or 80 yards off). I could not speak to hearing any telegraph bells ring in the cabin at this time. I could see the Outwood cabin signals at 9.38 p.m. I should have called up the platelayers to fog-signal had not the collision occurred.

4. ——— *Enothy*, porter, confirms Critchley's evidence.

5. *Thomas Critchley*, driver three years; two years fireman on the Lancashire and Yorkshire Railway, and 16 years driver and fireman on the London and North-Western Railway.—I started from Skipton at 8.17 with the 8.15 p.m. train for Manchester. I left Accrington at 9.12 p.m., eight minutes late, waiting for the Todmorden train. On leaving Accrington the train consisted of engine and tender and seven vehicles, five of which were coupled to the guard's van with continuous breaks. The engine was a six-wheeled one with the driving and trailing wheels coupled, and a six-wheeled tender. I had the vacuum break applying blocks to the four coupled wheels of the engine and to the six tender wheels. (The engine and tender together weighed about 40 tons.) I use this break for all ordinary stops. I stopped at Haslingden, Helmshore, Ramsbottom, and Bury, and left Bury at 9.44, still eight minutes late. After leaving Bury there were no signals against me till I approached Radcliffe Bridge. It became foggy after leaving Bank Top (1 mile from Radcliffe Bridge) and the fog became thick about Radcliffe goods cabin. I could just see the lights in the cabin. I saw that the home-signal at Radcliffe goods yard was off, and I also saw the starting-signal off, but the Radcliffe Bridge distant-signal (on the same post) was against me; this I was just as I was passing the post. My steam was on at

this time, and my speed about 40 miles an hour. I at once shut off steam, whistled for the guard's break, and then applied my own break. I did not reverse my engine, the break having already locked the wheels. I felt the guard's break act slightly on passing the Radcliffe Bridge home-signal, which was at danger. My speed then would be 15 miles an hour, and about 8 to 10 miles an hour on striking the other engine. Neither I nor the fireman jumped off. I was just coming under the bridge when I caught sight of the other engine which I thought was at a stand. We ought to have stopped at the home-signal, and had the weather been clear this is what I should have done. The engine break was very prompt in its action, I think I had the break on in about two seconds. My mate put sand on. I know rule 269 relating to fogs. I was bruised on the hip and thigh.

6. *James Brown*, fireman about 12 months, six months with Critchley.—I was on the right-hand side of the engine. We ran into the fog about Bank Top, and on passing Radcliffe goods cabin we could see about 20 yards in front of us. The signals here were all clear, but the Radcliffe Bridge distant-signal was at danger; this we saw about 20 yards off. I was putting the injector on at the time, but on looking up I saw steam was shut off; the break whistle had been given, and the break put on. I then looked out for the home-signal and found it on; we passed the distant-signal at from 35 to 40 miles and the home at from 15 to 20 miles an hour, and we struck the engine at from 12 to 15 miles an hour. I did not jump off, and was slightly hurt in the leg. I cannot say whether the goods engine was moving or standing when we struck it. We ran about 100 yards after the collision. No wheels of the engine or tender were off the rails. I did not feel the guards' breaks go on.

7. *Joseph Gee*, guard 16 years.—I left Skipton with the express train on the evening of the 13th two minutes late, and Accrington seven or eight minutes late; from Accrington the train consisted of a Midland composite, a North British composite, two third-class, one first-class, one second-class, and a van, the five last vehicles being coupled together with Fay's patent breaks. We kept time to Bury, and ran into fog soon after leaving Bury; at Radcliffe goods yard cabin it became dense, and we could not see more than 20 or 30 yards. I did not see the distant-signal from Radcliffe Bridge station, but somewhere near this signal I heard the break whistle, and said to a timekeeper who was in the van, "He is whistling," and then at once applied the break, and got it hard on in (probably) ten seconds. I think I had it hard on before we passed the Radcliffe Bridge home-signal. The speed on the whistle being given was not less than 40 miles an hour, and would be 10 to 12 miles an hour when we struck. I could not see the front of the train, not even the glare of the engine fire. I had hold of the break wheel, and was stunned from a blow on the forehead. I was off duty for four days. My van was about at the down end of the platform when we stopped.

8. *William Chaffer*, guard 18 years, acting as timekeeper with the train from Skipton.—We left Bury at 9.45, nine minutes late. On passing Radcliffe goods yard cabin I saw the home-signal off, and the fog then became so thick that I could not make out the Radcliffe Bridge distant-signal. I heard the break whistle at about the position of this signal, the speed being about 45 miles an hour. The guard (who had been close to the break handle since leaving Bury) immediately applied his break, and I at once heard the van wheels skidding. The speed diminished nicely, and was not more than 10 or 12 miles an hour on striking. I was looking out of the window, and was thrown down on the bottom of the van, injuring my face. I was off duty two days. I booked the time of the collision as 9.48.

9. *William Kirkby*, driver about 20 years.—I started from Chatburn with a goods train for Outwood. We were due to leave Chatburn at 1.50, but left at 3.25, delayed by block and shunting. We left Bury about 9.25, the express being due to leave at 9.36, having work to do at Radcliffe goods yard and Radcliffe Bridge. It became foggy at Bank Top, and was worse at Radcliff goods yard, where we put off some waggons, and the fog was thicker still on approaching Radcliffe Bridge where the signals were on. I could see the distant-signal 200 yards off. I stopped at the home-signal and gave a whistle to cross the road, the signalman lowered the signal, and gave me a green light from the cabin, which light I saw from the bridge. We then proceeded to the top crossing, which the signalman opened, and the guard unhooked a waggon and van (all we had on the train) and I gave them a touch to send them through the crossing. He then shut the points and we proceeded along the up line to the other crossing, I had got as far as the cabin, when I was stopped by two red lights on the platform. I at once shut off steam, reversed, and got steam on, and my mate applied his break, and we had just got into a motion of three or four miles an hour towards Manchester, when the express ran in. I was on the step next the 6 ft. space and was knocked off. I was not hurt. I saw the lights of the engine about the bridge, and then got on to the step, leaving the steam still on. The engine ran as far as the advanced-signal, 120 yards, where it stopped. On returning to the engine I found the regulator nearly closed from the shock.

10. *Daniel Nugent*, fireman seven years, six months with Kirkby.—We were 10 or 15 yards south of the signal-cabin at Radcliffe Bridge, when we got a red light from the cabin and platform. I put the break on, and my mate shut off steam, reversed and put on steam, and we stopped in about 20 yards, and were just moving back when I saw the other engine close to the bridge. I had turned the break off and then got on the step, and was knocked on to the platform before I had time to jump. I was only slightly hurt. We could not see more than 15 or 20 yards at this time.

11. *James Taylor*, goods guard eight years.—We were 70 minutes late leaving Chatburn on the 13th, and lost time on the road, and left Bury about 9.25 p.m. (the express being due to leave at 9.36), having dropped some waggons in the locomotive sidings, where the signalman said nothing about shunting for the Skipton express; we had already shunted on to the down line for the 9.15 up train. We detached eight waggons at Radcliffe goods yard, and left with one waggon and van for Radcliffe Bridge. The fog was then very bad. I do not think we actually stopped at the Radcliffe Bridge home-signal, but came steady to the up crossing, where I unhooked the van and waggon from the engine, and was sent through the crossing. I stopped the van and waggon about the middle of the station. I was still in the van when the collision occurred. I had heard the break whistle, and on hearing it I called out and gave my driver a red light; he was then about six yards on the Manchester side of me. The speed of the passenger train was 10 to 12 miles an hour, and when the collision occurred my engine was just on the move towards Manchester. I was alone in the van.

Conclusion.

This collision occurred in consequence of the neglect of the driver of the passenger train to attend to the provisions of rule 269; this rule enjoins caution in approaching signals in case of fog, whereas in the present instance though the fog was admittedly so dense that signals could not be seen for a greater distance than about 50 yards, the driver approached the Radcliffe Bridge distant-signal with steam on, at a speed acknowledged by himself to have been about 40 miles an hour. In consequence of this want of

caution, and notwithstanding that the coupled wheels of the engine, as well as all the wheels of the tender were fitted with the vacuum break, (which the driver says he applied, and which he says promptly took effect), notwithstanding that the guard's break, applying to five out of the seven vehicles composing the train, are said to have been put on very shortly after passing the distant-signal, and notwithstanding that the gradient rises at 1 in 264 from close to the distant-signal to the point of collision, the passenger train came into collision with goods engine at a point 650 yards inside the distant-signal, and 214 yards inside the home-signal (at which latter signal the engine ought to have stopped) at a speed which could hardly have been less than 15 miles an hour.

In spite of this great want of caution on the part of the driver, yet had the block telegraph rules not been departed from this collision would not have occurred. For the breach of these rules, I think there is but little doubt that signalman Corcoran (who was at the time of the collision under notice to leave the Company's service on account of previous irregularity in block working) is to blame, and that he gave "Line clear" for the goods train to Radcliffe goods yard while the engine of this train was still on the up line in the station, and absolutely moving backwards along this line towards Bury; he probably acted thus under the foolish idea that as he was bound to stop the passenger train at the home-signal in order that he might inform the driver of the absence of a tail light on the previous train, he might with impunity break the block telegraph rules, and thus save the fast train a little time.

The driver of the goods engine, while showing promptness in endeavouring to get his engine into motion towards Manchester on being informed of the approach of the express, so completely lost his presence of mind before jumping off his engine that he forgot to close the regulator, and had the shock of

the collision not closed it, the engine would have run away towards Manchester, with results which might have been most serious. The goods train in this case should not have been allowed to leave the locomotive sidings at Bury till after the fast train had passed. The signalman at these sidings should be informed by telegraph as to how fast the trains are running, in order that he may know how to deal with goods trains, so as not to detain them unnecessarily.

Although even had a fog signalman been at his post at the Radcliffe Bridge up distant-signal, the collision would have occurred all the same,—for as the fog was so dense the man would have had to stand very close to the distant-signal, and would have hardly given more warning than the signal did itself,—yet the question is again raised as to the unsatisfactory state of things with regard to fog signalling arrangements, especially in cases such as the present where a fog suddenly comes on, and renders the attendance of fog signalmen necessary before there is time to summons them from their houses. Some mechanical means of dealing with this question, such as that now under trial on the suburban lines of the Great Northern Railway (and as I understand with satisfactory results) is greatly to be desired.

It is probable that had the driver of the passenger train had control of the whole of the break power with which it was supplied he might have stopped in time to have avoided the collision.

The up distant-signal at Radcliffe station is not at present far enough from the home-signal, and the superintendent of the line proposes to have it repeated on the Radcliffe goods yard up home-signal post; this will be a decided improvement.

I have, &c.,
C. S. HUTCHINSON,
Major-General R.E.
The Secretary,
(Railway Department,)
Board of Trade.

Printed copies of the above report were sent to the Company on the 7th January 1878.

LANCASHIRE AND YORKSHIRE RAILWAY.

SIR, *Darlington, 16th January 1878.*

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 2nd inst., the result of my inquiry into the circumstances connected with the collision which took place on the 29th ultimo, at New Moss Colliery junction, on the Skelmersdale branch of the Lancashire and Yorkshire Railway.

In this case the 7.25 p.m. passenger train from Rainsford junction to Ormskirk and Southport came into collision with a mineral train which was shunting at the colliery junction.

Five passengers are reported to have been injured, and the guard of the passenger train was also badly shaken.

In the passenger train the engine had its buffers and buffer beam broken, its cylinder taps and foot-steps knocked off, and the smoke-box door damaged. The bodies of all the carriages were moved on their frames. The leading and driving wheels of the engine, and the leading wheels of the carriage next it, were knocked off the rails.

In the mineral train two waggons were knocked to pieces, and two others damaged.

Description.

The Skelmersdale branch is a double line, full of colliery junctions. New Moss Colliery junction is situated between Bromilow and White Moss east colliery junctions, at each of which junctions there are signal-cabins in which the levers for working the points and signals are concentrated and properly interlocked, and block telegraph working carried on,

Bromilow cabin is, however, closed at night, and block working is then carried on between New Moss and Bushey Lane junction, $1\frac{1}{4}$ miles from New Moss. As regards the down line, on which the collision occurred, the New Moss Colliery junction is protected by a down distant-signal and down home-signal, the former of these serving also as the down starting-signal at Bromilow Colliery junction, and the latter also as the down distant-signal from White Moss Colliery junction.

The down line rises on a gradient of 1 in 128 up to the down home-signal, where it changes to a falling gradient of 1 in 190. The collision occurred 50 yards west or inside of the down home-signal, and 165 yards east of the signal-cabin.

Evidence.

1. *Charles Lcc*, passed as a driver and in charge of engines for three years, fireman six years. I started from Rainford junction on the 29th at 7.32 p.m., seven minutes late (waiting for a train from Manchester), with a tank-engine (chimney first) and five vehicles, all coupled with Newhall's breaks, having first to stop at Skelmersdale. I got all right signals at Bushey Lane junction. Bromilow distant-signal, which is the home-signal for Holey Fold crossing, was showing all right. Bromilow home-signal was not alight, but I saw that the arm was down. Bromilow starting-signal, which is also the distant-signal for New Moss, was not alight, and I could not see whether the arm was at danger or not. This signal is generally alight, and I therefore treated it as a danger-signal and proceeded slowly to the New Moss home-signal; this was also not alight, and I was