

The
VIRTUAL MUSEUM
of the
LANCASHIRE & YORKSHIRE RAILWAY

Accident Reports.

20 April 1897

BoT Report into Accident at
Burnley.

(6 Pages).

duty was to obey them, and, if after a time the fog showed no signs of lifting, to have sought out his inspector and asked for instructions.

His excuse is that he did not think the fog was sufficiently thick to render it necessary to desist from work, but it is more probable that he never gave the matter a thought at all. Whether he erred from stupidity or thoughtlessness hardly affects the case. He had accepted a position of authority, whereby he made himself responsible for the safety of the men under him, and yet he entirely ignored one of the most important rules for ensuring that safety.

The driver of the train is entirely free from blame. He was looking out for the signals, and was unaware that any men were at work.

Although, for reasons given above, I do not regard the fact that Whiteman had no detonators in his possession as having contributed to the accident, it is manifest that he should have been supplied with these articles for use in emergencies. There is a rule (No. 312) which lays down in definite terms that "each gang of platelayers and labourers must be supplied by the inspector of permanent-way for the district with two sets of day-signals, two hand-signal lamps, and a proper number of detonators." In spite of this rule Whiteman's gang was supplied with none of these things. Inspector Kemp, who appointed the gang and whose duty it was to properly equip them, excused himself by saying that he did not think these articles were necessary in the case of men employed in duties of the nature described. But the rule is absolute, and states that every gang "must be supplied," &c., &c.; while rule 314 (also quoted in this report) makes the inspectors of permanent-way responsible that the rules and regulations are observed. It is therefore my duty to record my opinion that inspector Kemp committed a very serious breach of the regulations, which it is his special duty to obey and to enforce, in omitting to supply this gang with the appliances specified, and which in a case of emergency might be essential to the safety of the traffic or of the men themselves. Had it happened that this omission on his part contributed in any degree to the fatality, inspector Kemp's position would have been one of the utmost gravity.

Inspector Kemp is an old and valued servant of the Company, and I much regret to have to make these remarks concerning him. But in the interest of railway men generally, and of the travelling public, and also in justice to the Company it is impossible to pass over in silence such neglect of duty. If those in responsible positions set the example of ignoring rules and regulations, it can hardly be regarded as surprising if the men under them do the same.

I have, &c.,

The Assistant Secretary,
Railway Department, Board of Trade.

H. A. YORKE,
Lieut.-Col., R.E.

Printed copies of the above Report were sent to the Company on the 4th June.

LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.,
May 31st, 1897.

Sir,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 22nd ultimo, the result of my enquiry into the collision that occurred, at 5.40 a.m. on April 20th, at Burnley station, on the Lancashire and Yorkshire Railway.

In this case, as the 5.25 a.m. Colne to Blackburn passenger train was entering Burnley station, it came into collision with a light-engine, the signals having been lowered for the train before the section was clear.

Three passengers are stated to have complained of being shaken, the fireman of the light-engine received severe injuries to his head, ribs, &c., and the drivers of both engines were somewhat badly hurt.

The train consisted of a six-wheels-coupled tender engine and seven (equal to nine) vehicles, fitted throughout with the automatic vacuum-brake. None of the wheels of the train left the rails, but the leading carriage was buffer-locked with the

tender in front of it. Details of the damage done to the engine and carriages will be found in the Appendix.

The light-engine was also a six-wheels-coupled tender engine. It had brought a goods train from Bolton, and, after disposing of that train, had been signalled forward from the north to the south cabin as a bank-engine in rear of another goods train; it did not follow the goods train to the south cabin, but was moving forward when the collision took place. The force of the collision drove the light-engine forward through the station, and considerably damaged it. For details, see Appendix.

Description.

There are up and down passenger and down goods loop lines through Burnley station, the loop line being on the west side of the railway.

The station working is controlled by the signalmen in Burnley north and south cabins, the former 461 yards north of the station-master's office (on the up platform) and the latter 168 yards south of the office. Absolute block working is in force between these cabins.

At the north end of the station there are extensive sidings on the up or east side of the railway, having connections with the passenger lines which are worked from a small cabin known as "Burnley station intermediate cabin." This is not at present a block-cabin, and the levers are controlled by release levers in the two cabins already referred to.

The only point which need be noted in reference to the signalling is that the up outer home-signal for the south cabin is situated 336 yards north of that cabin and 70 yards north of the intermediate cabin. An engine standing there cannot be seen from the south cabin.

Approaching Burnley from Colne the line is on a falling gradient of 1 in 168, and between the north and south cabins the line bends to the right or west. The radius of the curve is about 60 chains up to near the outer home-signal of the south cabin, and about 15 or 16 chains from there through the station.

The following distances may be noted northwards from the south cabin :—

	Yards.
To the south end of the up platform and inner home-signal -	58
" station-master's office - - - -	168
" north end of the up platform - - - -	238
" intermediate cabin - - - -	266
" point of collision - - - -	316
" outer home-signal (south cabin) - - - -	336
" north cabin - - - -	629
" up home-signal, north cabin - - - -	893
" up distant-signal, north cabin - - - -	1,494

The next cabin north of Burnley North is Brierfield cabin.

There is a water-column close to the south end of the up platform, and there are main line cross-over roads at the north and south cabins respectively.

The block rules of the Lancashire and Yorkshire Railway Company lay down that when a bank-engine has been accepted by a signalman, "the train out of section" signal must not be given until the assisting engine has arrived."

Evidence.

John Farrell states : I have been about three years in the Company's service, and for 18 months signalman at Burnley (Bank Top) station. On April 19th I came on duty at 10 p.m., to work until 8 a.m. on the 20th in Burnley north cabin. The 11.50 p.m. goods train from Colne to Church arrived on the up line at 4.51 a.m. on the 20th; the train had to wait until accepted by the south cabin at 5.21, and it passed my cabin at 5.23. It was daylight then, but a little misty. I saw the goods train stop between the two cabins, and soon afterwards the goods inspector at the station rang up for the bolt-lock of the intermediate cabin to be released, and I pulled over the lever for that purpose. At 5.7 a.m. the 12.30 a.m. Bolton to

Burnley goods train arrived on the down line at my cabin. After distributing the waggons on the various sidings, the engine had to run round to the other end of the station. At about 5.24 I crossed the engine over to the up line, and then spoke to the south cabin signalman, on the telephone, and asked him if he would have the light-engine on in rear of the Colne train, as a bank-engine, and I suggested to him that it might be taking water at the water column while the goods was shunting. He agreed, and I then gave the ordinary signal for a bank-engine forward on the bell at 5.28. We work absolute block between the two cabins. This is not an uncommon way of getting rid of a light-engine from north to south.

Before the light-engine went forward I told the driver to bank the Colne-Church train up to south cabin, and I added that he was to follow it up to south cabin; at that time he would not, at the outside, be more than 10 yards from me. I believe both the driver and fireman to have thoroughly understood what I said. The driver went away almost before I had given him a signal to start (with green flag). At 5.10 a goods train arrived from Aintree to Colne, and the rear portion remained standing there. At 5.32 rear portion offered me the 5.25 a.m. passenger train from Colne to Blackburn, which I accepted from at once. I received the "on line" signal from Briarfield at 5.36, and I then offered the train to south cabin. At 5.38 I had "train out of section" from south cabin for the up goods, and I offered the passenger train a second time, which was accepted at 5.38 according to my book. Before this the inspector had rung up for the intermediate cabin to be bolted, when I looked out and saw the goods train and banking-engine moving away. I had also noticed the goods train shunting back on the down side of the railway before I got the up passenger accepted. At 5.39 the latter passed my cabin, without having been stopped—my home-signal being off for the train—and the collision took place at 5.40. The speed of the passenger train was rather faster than usual for a stopping train.

James Ashworth states: I have been in the Company's service since 1891, and employed as a relief signalman in south cabin, Burnley, since February last. On the 19th April I came on duty at 8 p.m. to work until 6 a.m. on the 20th. I was unable to accept the 11.50 Colne to Church goods for half an hour, because a previous goods train was in the station, blocking the up line for that time. I accepted the former train at 5.21 and it was given me "on line" at 5.21. The train pulled up at the intermediate cabin, and the goods inspector rang me up for the release-bolt of that cabin; before pulling the release-lever my outer home-signal had to be placed to danger. I cannot see a train standing at that signal, but I knew the train had to stand there to do shunting work. At about 5.25 the north signalman asked me on the telephone if he could let the Bolton engine bank the Colne-Church train to the south end of the station, for the sidings. I said, "Yes, let him come as a bank-engine." This is the first time, in my experience, of an engine being treated in that way, but I believe it is not unusual, at Burnley. At 5.28 I had two 2's on the block bell as a signal, which indicated "train on line" for the bank-engine. At about 5.32 the goods inspector again rang to intimate that the shunting work was completed, and that I was to put the bolt back; the goods train arrived at my cabin about 5.35, and I shunted it on to the down line. I had then forgotten all about the banking engine. At 5.38 I gave north cabin "train out of section" for the goods train, and I accepted the 5.25 up passenger train. Almost immediately after receiving the latter "on line" I remembered about the light engine and I reversed my signals to try to stop the passenger, although I could neither see it nor the light-engine. I did not see the collision.

Robert Hardy states: I have been 12 years in the Company's service, and for six years goods inspector at Burnley station. When the Colne-Church goods train arrived on the 20th I was at the top end of the station, and I followed it and went to the intermediate cabin, where I pulled the siding-points after the release-levers from

north and south cabins had been pulled. There is telephonic communication between the three cabins. When the goods work was completed in the coal sidings I put back my levers, leaving the main line signal slots "off," and then told north and south cabins to lock up my frame again. I ran forward to the goods driver and told him to make haste, so as to get out of the way of the up passenger then nearly due. At that time I did not know there was a bank-engine in rear. I went to the south end of the station with the train, and while there I saw steam somewhere about the outer home-signal, which I saw was "off." I called out to the signalman that there was an engine standing there, but I cannot say whether he heard me. The collision occurred in a very short time afterwards.

William Rodger states: I have been 39 years in the Company's service, and a passed driver 28 years or more. On the 20th I came on duty at 4 a.m. to work until about 1 p.m. My engine, No. 1150, is a six-wheels-coupled tender engine fitted with the automatic vacuum-brake and a tender hand-brake. I left Colne at 5.26 a.m. to run to Blackburn with seven (equal to nine) vehicles behind the engine. Approaching the north cabin, Burnley, the distant signal was at danger, but the home-signal was "off" when I first sighted it. I passed the cabin at a speed of about 30 miles an hour. I had to stop at the station. No signal was thrown to danger in front of me before the collision took place. I was looking out for signals all the time. I drive from the left side of the engine. My mate was also looking out for signals. When we were just about the south cabin outer home-signal, my fireman said, "Look out, mate, there is an engine in front." He could see it before I could. Steam had been shut off before we sighted the north cabin distant-signal. The automatic brake was on gently when passing the north cabin, and speed would not exceed 15 miles an hour at the south outer home-signal. As soon as my mate spoke I put on my brake full, but I do not think we were more than an engine-length away from the obstruction; a goods train on the other road prevented my mate from seeing the light-engine sooner. The latter was moving slowly; and when we struck it, we knocked it forward, but it soon stopped and we then struck it a second time. The second collision knocked me down and I was bruised in several places. No wheels of my train or engine left the rails. The left-hand tender buffer was buffer-locked with the leading carriage. I have not done any work since the accident. It was a clear morning.

James William Yeoman states: I have been in the Company's service nearly 6 years, and about 4 years a fireman. On the 20th instant I was firing for driver Rodger, and my hours of work were the same as his. Approaching Burnley the speed passing the north cabin was no faster than usual. Steam had been shut off and the brake-blocks were slightly rubbing; speed was being reduced as we ran between the cabin and the station. I was looking out at the side of the cab when I saw the light-engine, and I called out to my mate. I tried to apply the hand-brake, but had not time enough to get it fully on. I was knocked forward a little on the second collision taking place and hurt on the knee, which collision sent the light-engine forward the whole length of the platform.

William Rogerson states: I have been 15 years in the Company's service, and a spare driver since

1890. On April 19th I came on duty at 11.35 p.m. to work until about 11 a.m. on the 20th. My engine, No. 73, is a six-wheels-coupled tender engine, fitted with the automatic vacuum-brake, working blocks on all wheels of the engine and tender. I left Bolton about 12.40 a.m. on the 20th to run to Burnley and return. I arrived at Burnley at 5.5 a.m., where we shunted our train and disposed of it in the sidings; I then shouted to the signalman in the north cabin to ask if we could get water at the south end of the station, and he said "Yes." The signal was pulled "off" for us to go out from the down loop to the down main, and then to cross from the down to the up main. As we were going across the signalman put his hands out to indicate to us to go steady, so when we were across I brought my engine to a stand. We were then on the station side of the north cabin. I could see the tail of a goods train on the up line at the intermediate cabin. I have probably driven the same train half a dozen times before, and I was frequently with it as fireman. I do not recollect having been brought across previously when the up line was occupied. I drive from the left side of my engine, but we were running tender first at this time. My fireman looked back and told me the signalman wanted us to go forward steadily, as there was a train in front, and to follow it up. I could not have seen the signalman without stepping across the footplate. The fireman is a passed driver. I went up to the train and stopped about eight or nine yards away from the brake-van, which van was just outside the south cabin outer home-signal; after about three or four minutes the train moved away, and I followed it up a little, and opened my whistle for the signal to be pulled off. I am forbidden to pass any signal at danger unless I get instructions to do so from the signalman. In another two or three minutes the signal was lowered, and I gave the engine steam at once; we had only gone about 30 yards when we were struck from behind; the tool boxes and coal fell on the footplate, and I got jammed, and had two ribs

fractured. I am still off duty. While standing at the outer home-signal, the brakes had leaked off a little, and the large ejector was put on to blow up the vacuum, and it was still on when the collision took place; I had hold on the regulator at the time, but I could not shut off the steam until we reached nearly the south end of the platform. When we came to a stand we were within about an engine and tender length of the signal-box. The whistle pillar below the shut-off cock, by the shifting of the cab, and steam escaped, making it impossible for me to see anything for a time.

Henry Hilton states: I have been 8½ years in the Company's service, a fireman about three years, and a passed driver for about one year. On the 19th and 20th April, I was firing for driver Rogerson, and my hours of labour were the same as his. I had not been with the 12.30 a.m. goods train, Bolton to Burnley, for about 14 weeks before the accident, but prior to that I had frequently worked with it. I do not recollect any previous instance of being sent through from the north to the south cabin at Burnley, with a light-engine, in rear of a goods train. After we had crossed from the down to the up line at the north cabin, I looked round and I understood the signalman to say, "Follow that train up," which I told my mate; he said "All right," and gave the engine steam. We stopped about half an engine length clear of the brake-van of the goods train. When the goods train went away we just moved up to the signal, and when the signal was lowered we went away at once; I was then looking out ahead, and when the collision took place I was struck on the side of the head by one of the tool boxes coming down. I was insensible for two or three minutes, and I have since been in hospital and have not yet resumed duty. I was injured in the ribs and elsewhere. The steam escaped, owing to the whistle pillar being broken, and I could not see my mate. The train engine only struck us once. Steam was on at the time.

Conclusion.

The primary cause of the collision must be ascribed to forgetfulness on the part of signalman Ashworth, on duty in the south cabin, who, after accepting a bank-engine in rear of a goods train at 5.28, failed to notice, at about 5.35, that the train arrived without that engine, and subsequently at 5.38 accepted a passenger train on the same line, while the bank-engine was still in the section. The circumstances of the case are fully detailed in the evidence, and are briefly as follows:—

A goods train from Colne to Church passed Burnley north cabin, on the up line, at 5.23 a.m., and came to a stand between the north and south cabins, having shunting work to do in the coal sidings on the up side of the railway. Those sidings have a trailing connection with the up main line at the north end of the station platform, the points of which are worked from the intermediate cabin as already described. The train stood with the tail van a few yards outside the south cabin outer home-signal, and the signal, which had been pulled off for the train, had to be replaced in the danger position before the frame in the intermediate cabin could be made use of. While the shunting operations were in progress, under the directions of goods inspector Hardy, the north cabin signalman asked the man in the south cabin (Ashworth) if he might send a light-engine through the section as a bank-engine in rear of the goods train, the latter, it will be noticed, having already gone forward into the section, the rear end of the train being about 280 yards from the north cabin at the time. Ashworth raised no objection, and the customary bell signals were exchanged at 5.28 between the two men, the bank-engine signal being duly entered in the train register books.

The light-engine went forward and stopped apparently about eight or ten yards clear of the brake-van of the goods train, outside the south cabin outer home-signal. A

few minutes later, the train, on completion of its work, moved away towards the south cabin without the signal being lowered, the train engine having of course passed the signal before commencing the shunting operations. The driver of the light-engine did not consider himself at liberty to pass that signal at danger, and he therefore did not follow the train beyond the signal, which, as explained above, is 336 yards from the south cabin, where he was out of sight of the signalman. The signal was taken off in two or three minutes for a passenger train, and he then gave his engine steam, but had only gone forward about 20 yards (he estimates the distance at 30 yards), when his engine was run into at the rear, with the results already stated.

It appears that the goods train arrived at the south cabin about 5.35, being then set back over the cross-over road on to the down line, out of the way of the up passenger train which was almost due. Signalman Ashworth forgot that he had accepted the bank-engine with the former train seven minutes before, and he failed to notice the absence of any bank-engine on its arrival. At 5.38 Ashworth gave the "Train out of section" signal to the north cabin, and at once accepted the passenger train (from Colne to Blackburn) on the up line. About one minute later the train was signalled to him "On line," and he then seems to have remembered the light or bank engine, but he was unable to avert the collision, which occurred at about 5.40 a.m.

The passenger train driver found the home-signals "off" as he approached the station, and, owing to the curve of the line and to the fact that the down line was occupied by a goods train, he and the fireman saw nothing of the engine in front of them until it was too late. There is nothing to indicate that they were not keeping a proper look-out, and I see no reason to think they are in any way to blame.

The questions for consideration, arising out of the accident, seem to be how far the signalmen and the driver of the light engine were, respectively, acting in accordance with instructions in the course which they adopted in this instance.

As regards driver Rogerson, who gave his evidence clearly and fairly, it is much to be regretted that he did not ascertain more definitely, from the signalman in the north cabin, what he was to do when he moved up to the tail of the goods train in front of him. He says the operation was an unusual one, while the information given him by his fireman was somewhat vague and not such as I should have expected a driver of experience to accept unquestioned unless he had frequently done the same thing before. He was intended to go through the section with the goods train, but he did not so understand his instructions, and in not passing the signal referred to above, at danger, he was doubtless only doing what he believed to be right.

The signalmen's action is difficult to explain. The men concerned appeared to me to think they were carrying out the block regulations in offering and accepting a bank-engine in the manner already described; but such a mode of working is quite irregular, and no attempt was made to justify it by any of the officials of the Company present at the inquiry. No assistance was needed by the train, and the second engine was only sent forward in order to pass it through the block section. If there is any ground for signalman Farrell's statement that it is not an "uncommon way of getting rid of an engine from north to south," steps should certainly be taken to put a stop to the practice at once.

I am informed that, prior to the accident, it had been decided to make the intermediate cabin into a block cabin—an alteration which this occurrence shows to be most desirable, and which makes it unnecessary for me to comment further upon the present arrangements.

The Assistant Secretary,
Railway Department, Board of Trade.

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

APPENDIX.

DAMAGE TO ENGINE NO. 73.
Both frames bent at leading end. Buffer-beam requires straightening. Buffer-beam angle-irons require repairing. Two new buffers required. Right driving splashers broken, requires renewing. Both loading combined splashers and sand-boxes

require renewing. Cast-steel motion-plate broken, requires renewing. Fall-plate damaged, three new hinges wanted. Platform edge angle-irons require taking down and straightening. Boiler thrown forward five-eighths of an inch, bending the tube-plate and angle-iron ring. Tubes and internal pipes will have to be taken out and the

boiler sent to boiler shop to have the tube-plate taken off and straightened. Smoke-box requires taking to pieces and rebuilding. Fire-box clothing requires repairing. One cylinder-cock bracket and C.I. damper bracket broken. Two new gudgeons required in cross-heads. 16 feet of 2-in. W.I. vacuum-piping and one new cab-window glass needed. Intermediate rubbing-block and one intermediate buffer broken, require renewing.

DAMAGE TO ENGINE NO. 1150.

Both frames badly bent at leading end, require straightening. One frame fractured, will have to be taken down and pieced up. New buffer-beam, eight new angle-irons, two new buffers, and four new platform plates wanted. Two new ends wanted to platform angle-irons. New draw-hook shell, bush and shackle wanted, complete. Three new fall plate hinges required. Two new C.I. cylinder cock brackets required. Two new C.I. sand-valves required. One new brass

lubricator and elbow complete required. Two new sand-pipes required. Two new angle-irons for sand-boxes required. Two life-guards require straightening. Two tender buffers damaged. One new intermediate buffer required. Drag-box front plate bent. Intermediate rubbing block broken, requires renewing.

DAMAGE TO CARRIAGES.

Bogie third van, No. 2218.—Two sole-bars, one headstock, one middle bearer, one longitudinal, two end panels, two foot-boards, one elevation opal-light, one buffer-casting broken. Body moved, &c.

Bogie composite, No. 452.—Body moved.

Third class, No. 2638.—One buffer-rod bent.

Bogie third, No. 2343.—One buffer-rod bent. Bogie third, No. 2639.—One headstock broken, two buffer-rods bent, body moved.

Composite No. 285.—One headstock, three end-panels, one side bottom rail, three bottom bars, &c. broken. Body moved.

Printed copies of the above Report were sent to the Company on the 23rd June.

LIVERPOOL OVERHEAD RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.,
May 11th, 1897.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 26th April, the result of my enquiry into the collision that occurred on the 15th idem at Dingle station on the Liverpool Overhead Railway.

In this case as the 10 a.m. down train from Dingle was leaving the station it came into collision with a train of empty coaches from Herculaneum, the driver of which had allowed his train to run past the home signals and to foul the cross-over road, leading from the up side of the island platform on to the down main line, through which the down train at that moment was passing.

Three passengers are reported to have complained of injuries. Two of the cases were slight, but one passenger was cut about the legs and received a shock of a more serious nature.

The two trains were of a precisely similar description, each consisting of two bogie carriages. The mode of traction is electric, the leading and trailing axles of each train being fitted with a motor, of which however only one, namely that in front, is in use at one and the same time. The current is conveyed to the motors by means of a slipper, which travels along the conductor, the latter being placed centrally between the rails and parallel to them.

The driver has a small compartment in the left-hand front corner of the leading carriage, and in this are placed the switches and controlling gear of the electric machinery, and also the brake-handles. All trains are fitted with the Westinghouse brake, which operates blocks on all the wheels in the train except those to the axles of which the electric motors are fixed, and each carriage has also a hand-brake. There is a guard in charge of every train, who sits in the compartment in the rear of the train, which corresponds with the driver's box in the front. When a train has reached its journey's end and has to return, the driver and guard change places. The compressed air for the Westinghouse brake is carried in cylinders below every coach, which are charged from compressors by means of flexible pipes at the terminal stations.

In this case the empty train, which had been stabled during the previous night at the carriage sheds at Herculaneum, was not charged with air, and the Westinghouse brake on it was therefore inoperative at the time of the collision. It was to have been so charged as soon as it reached Dingle station prior to its departure therefrom as the