

LANCASHIRE AND YORKSHIRE RAILWAY.

Board of Trade, (Railway Department,
1, Whitehall, London, S.W.,

31st January 1888.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 16th instant, the result of my inquiry into the causes of the collision which occurred on the 12th instant at Hapton station, between Accrington and Burnley, on the Lancashire and Yorkshire Railway.

In this case, during a fog, while the 11.25 a.m. goods train from Philips Park sidings, Manchester, for Colne, due at Hapton at 4.55 p.m., was proceeding on its journey near Hapton down advanced-signal, it was run into at the rear by the 5.20 p.m. passenger train from Preston to Todmorden, due to pass Hapton about 6.37 p.m.

Three passengers have complained of injury.

The guard of the passenger train was shaken.

The guard of the goods train was killed on the spot by a fragment of one of the buffer castings of the engine of the passenger train.

All the wheels of the engine and tender of the passenger train, and the front wheels of the vehicle next the tender, were knocked off the rails.

The rear brake-van and four rear waggons of the goods train were also knocked off the rails.

In the passenger train—which consisted of engine, tender, and five vehicles, fitted throughout with the automatic vacuum-brake—the engine and two of the vehicles were slightly damaged.

In the goods train—which consisted of engine, tender, 17 waggons, and two brake-vans—the rear brake-van and six waggons were damaged. The train was broken into four parts.

Description.

Hapton is an ordinary roadside station, provided with the necessary signals and with sidings joining both up and down lines. The levers working the points and signals are properly interlocked in a raised cabin on the down side of the line; the distance from the cabin to the up advanced-signal being about 565 yards, and to the junction of the siding (into which it was intended the goods train should have been shunted for the passenger train) with the up line 340 yards.

The collision took place about 96 yards outside the up advanced-signal.

The line from Hapton falls towards Burnley on a gradient of 1 in 330.

In consequence of the long distance between the signal-cabin and the junction of the siding, into which it was intended that the goods train should have been shunted, there

is no graphic bell communication between them with the following code:—

One beat	-	-	-	Acknowledgment.
Two beats	-	-	-	Unbolt siding points.
Three beats	-	-	-	Train shunted in siding clear of main line.
Four beats	-	-	-	Train departed.
Five beats	-	-	-	Bolt siding points.

Communication to be acknowledged by one beat.

Evidence.

... driver; 14 years in the service,
... the 12th instant I started
... with a goods train from
... Manchester, for Colne. I last
... I left Accrington about
... nder, 17 waggons, and two
... of the train and the other
... at the tail of the train.
... Accrington to Hapton,
... and at nearly all the
... first of all stopped
... er standing there
... taken off. I drew

past the starting-signal, which was also off, and came to a stand with the engine opposite the signalman's cabin. The signalman shortly afterwards told me to draw ahead, then to set back, and shunt into the siding, from which I understood I was to go forward and back through the points. I went forward at once, taking the tail of the train clear of the points through which I was to set back. I do not remember whistling on coming to a stand, but I kept looking back first on one side and then on the other for a signal to set back. I then shouted out to the guard to know if I was to come back, and I heard a voice—whose I do not know—saying, "Bring him back inside."

I then looked out for a signal, and shortly afterwards I got a green light to set back from the left-hand side of the train. I then commenced to set back, and was afterwards stopped again with a red light. When I got the red light the brake seemed to be on the crossing. I then lost the red light for a minute or so while I was stopped, and I then saw somebody coming down with a white light, and when he had come down about half the length of the train he waved the white light to indicate that I was to go ahead. When he came forward to the engine I found it was the guard. He jumped on to the engine-step and asked me if the signalman had said anything to me. I said "Yes, he told me to draw down and set inside," he replied the signalman had said nothing to him. I said to the guard "Are we right away?" and he said "Yes." This was before he asked whether the signalman had said anything to me. I then turned round and saw the advanced-signal off, and thinking it was off for me I went ahead. I turned round and saw the advanced-signal off when I was four waggons lengths from it. I was still going ahead, and had got into a speed of about eight or ten miles per hour when my train was run into from behind. I had heard nothing of the coming train. The collision took me completely unawares. I cannot say for certain where the tail of the train was when it was struck. Just before the collision I had looked back and thought I had seen the guard on the step of his van on the left-hand side. The collision separated the train into three or four portions. The engine and tender were disconnected from the front vehicle, then came three parts of the train, and then the remainder of the train. The front waggon was close to the tender, and there was a considerable distance between the other parts of the train. From the engine I could see the side lights of the van, that was about the extent to which it was possible to see. I did not ascertain afterwards who it was that had shown me the red light. I think four minutes might have elapsed from the time of my stopping after commencing to set back and the time of the collision. If I had not been stopped I should have had plenty of time to get into the siding long before the passenger train came up. After the collision I found the guard down the bank, I believe on the station side of the advanced-signal. He was quite dead, but I did not know how he had been killed. I do not know at what time the collision occurred. I know that there were two side lights burning at the back of the train, but I cannot speak as to the tail light, not having seen it. I had no conversation either with the signalman or porter after the collision.

2. *William Oswald Wood*, extra fireman; one year and seven months in the service, acting fireman about 11 months.—I had not worked with driver Walter Henry Wood before the 12th January, when I accompanied him with the 11.25 a.m. goods train from Philips Park sidings, Manchester, for Colne. On reaching Hapton we stopped opposite the signal-box. After the signalman had telephoned he told the driver to draw down as he might want us in the siding—as I understood him to say. We accordingly went down and drew beyond the siding points through which we were to set back, and after waiting a few minutes the driver got a signal to set back. We then set back about five or six waggon lengths, and after setting back five or six waggon lengths the driver said "Whoa! there is a red light." I do not know for certain whether any of the train at this time had gone through the siding points or not. We stopped and remained standing for about two minutes when the guard ran up and said the signal is off for us, and asked who told us to back into the siding, and the driver said in reply, the signalman, alluding to the conversation we had had with the signalman. After this the guard went back towards the van and gave the driver a white light to go ahead, and the driver said to me, "If Tommy gives us a light like that he will not be

able to get on the van." After making this remark the driver started, and the train had got into a speed of about eight miles per hour when the collision took place without our having heard anything of the passenger train. I cannot say whether the guard had got on to his van or not as the train was going away, and the driver said nothing to me about it. At this time the fog was so thick that I could only just see the side light of the van by leaning over the engine. Neither the driver or myself were seriously hurt by the collision. The train was separated into about four parts.

3. Driver *James Johnson*; 23 years in the service, driver 15 years.—I came on duty on the 12th January at 11.35 a.m., having left off work at 10.20 p.m. the previous night. At 6.32 p.m. I joined the train from Preston for Todmorden at Accrington. I left Accrington at 6.37 p.m., five minutes late, with a train consisting of engine, tender, and five vehicles, including one brake-van in the rear. The whole train was fitted throughout with the automatic vacuum-brake, which applied to the wheels of the engine and tender as well as of the vehicles. The engine was a six-wheeled engine with four coupled wheels, the brake applying to the driving and trailing wheels, which are the coupled wheels. The brake was in good order. If things had gone right the first stop would have been at Rose Grove, but we were stopped by signal at Huncoat and detained there two minutes. After leaving Huncoat I found on approaching the Hapton signals that they were all off, that is to say, the distant, home, starting, and advanced signals. I was able to see these signals only about the length of the engine before coming to them on account of the fog. There were no fog-signalmen out at either of these signals. On passing the advanced-signal I calculated my speed to be about 30 miles per hour, and about an engine length outside the advanced signal I caught sight of four red lights altogether. I thought these lights were at a standstill. I was able to see these lights only about the engine's length—that is about from 15 to 20 yards. Steam was on at the time. I had time to shut off steam and apply the brake before striking the van of the goods train. The brake power began to act just as we struck the train. After the collision we went forward about four coach lengths, driving the goods train in front of us. The engine then came to a stand with all its wheels and those of the tender off the rails. The buffers of the engine and the brake-van were both broken off, but the end of the brake-van was not broken through. The first pair of wheels of the first coach were also off the road. The passenger train was not separated. From the position of the fourth light I thought it was on the ground about opposite the lights on the van. Having found the distant, home, and starting signals clear, I presumed I should find the advanced-signal clear, nor did I receive any hand-signal from the signalman on passing the cabin, and I therefore thought myself justified in assuming that the advanced-signal would be off, otherwise I could not have stopped at it, inasmuch that I could only see for about 17 yards. Had the advanced signal been at danger, I should have been stopped at the home-signal and then drawn down to the advanced-signal with a green light. I am still under the firm belief that it was not possible to see a further distance than from 15 to 20 yards. The fog was a shifting fog. I think the brake acted as well as a brake could act. From what I observed after the collision I think the guard must have been killed by a splinter from my engine-buffer, which splinter fractured his skull. I did not notice a goods train drawing up on the down line as I was passing through Hapton station, and I heard no whistle from the driver of any train. I was not hurt.

4. *Thomas Eccles*, fireman; 3½ years in the service, acting fireman 12 months.—I joined the passenger train at Accrington, not having before this worked with driver Johnson. We left Accrington at about 6.37, five minutes late. I agree with the driver's

evidence. As we were passing the advanced-signal at Hapton I saw a red light on the right-hand side, the side I was standing, this light being about an engine's length ahead. Johnson at once shut off steam and applied the vacuum-brake. I had just time to get hold of the hand-brake and give it a turn before the collision occurred. Both Johnson and myself were slightly injured, but not enough to disable us from work. I think the engine went on about the train's length after the collision, driving the goods train in front of it.

5. *Thomas Ellithorn*, passenger guard; 15 years in the service, guard about five years.—I was guard of the 5.20 p.m. passenger train from Preston for Todmorden on the 12th January. We left Accrington at 6.36 p.m. four minutes late, having next to stop at Rose Grove. The engine was changed at Accrington, on leaving which place the train consisted of engine, tender, and five vehicles, including a brake-van in the rear of the train. The train was fitted throughout with the automatic vacuum-brake, which I could apply from the van in case of necessity. The vacuum-gauge indicated 18 inches of vacuum. After leaving Accrington we were stopped by signal two minutes at Huncoat. On leaving Huncoat I did not see the Hapton signals, as I was engaged getting parcels ready for Rose Grove. After passing through Hapton the collision took me unawares. Just before the collision the brake went on suddenly and nearly threw me on the floor. The shock of the collision was rather violent. I was thrown down on the van floor and stunned. I was shaken, but able to return to my usual work in about three days. I recovered in about a quarter of an hour, and on getting out of the van the only light I could see was that of the advanced-signal, which I was close to. It was too foggy for me to see the light of the engine from the van. Permanent-way inspector Hodson was in my van with me from Accrington, and was not injured; he went back to protect the train.

6. *George Goodwin*, signalman; 12 months in the service.—On the 12th instant I had been in charge of the cabin about one week as signalman, after having learnt the duties during the 12 months I have been at the station. I came on duty in the Hapton cabin at 6.0 p.m. on the 12th January, having left duty at 6 o'clock the same morning. When I came on duty the fog-signalmen had just been brought in, the fog having become less thick than it had been. When the fog-signalmen had been out one had been employed at the up distant-signal, one at the up home, and one at the down distant-signal. About the time of the collision the fog was so thick that I could only just see the down home-signal, about 60 yards off. After I came on duty two trains passed on the up line, leaving at 6.17 p.m. and 6.23 p.m. The Philips Park siding goods train arrived opposite my cabin at 6.33 p.m. After having been stopped at the home-signal the engine of the train stopped opposite my cabin. I told the driver to wait half a minute whilst I telephoned to Accrington to see where the express was. I then ascertained by telephone from Accrington that the express was at the platform. After receiving this message I told the driver of the goods train to draw up and back into the siding as the express was at the platform at Accrington. The driver seemed to understand what I said, and at once went ahead. After he had drawn ahead, and as I concluded, got clear of No. 11 siding points, he whistled, upon which I opened No. 11 points. After the goods train had passed the cabin I shouted out for someone to go to the siding points, and I then saw Porter Garsden running up towards the siding points. After about eight minutes I heard the siding bell give three beats, meaning train in siding clear of the engine, in consequence I put back No. 11 lever, and being so I cleared back to Huncoat for the goods train and accepted the express which I knew was at Huncoat, as the Huncoat signalman had called me before at 6.38. The express was

given "On line" at 6.42, and I lowered all four up signals for it to pass, and it passed at 6.47 at a speed, I should think, of about 30 miles per hour, not so fast as usual. I did not hear the crash of the collision. I was not aware that the collision had taken place until the driver of a down goods train from Barnsley came to the box and told me. The Barnsley train arrived at 6.47, and had been stopped at No. 18 down home-signal. The Barnsley driver told me that the goods train was on the up main line. It was his telling me that first made me aware that the goods train was on the up main line. I did not hear this goods driver whistle to attract the attention of the driver of the express. I did not ask him why he did not whistle. I could see the head lights of the engine of the Barnsley train drawing up to the home-signal before the express passed. I looked for the tail lights of the goods train in the siding, but I could not see them. My object in telling the porter to go up to the siding points was not to carry out the bell code, but to assist the guard in shunting the train. The guards are not in the habit of using the bell code. Five minutes must have elapsed after my closing No. 11 points and the collision taking place. I had no difficulty in closing No. 11 points, and the train must have been on the main line when I closed them, or else the points would have been burst. I cannot throw any light upon how the driver could have received the signal to go ahead; I had no communication with the guard of the goods train as he passed me, nor did I try to draw his attention. The fog at this time was a shifting fog, coming in patches. It became more dense just about the time of the collision.

7. *Joshua Garsden*, porter; eight weeks in the service.—I was on duty in the goods warehouse at Hapton just before the collision on the 12th January, and I was called out of the warehouse by signalman Goodwin to go to the goods train and assist in shunting it. I was fully acquainted with the bell code relating to the working of the siding. I went to the train and found it about 40 yards beyond the points, near the advanced-signal. I could not see whether the points were open or closed. I then told the guard to back into the siding, and he asked me how the points were. In working with the other signalman, Harker, I knew he would not open the points until I gave him two rings upon the bell. I accordingly went to the instrument and gave two beats on the bell. Goodwin acknowledged it with one beat. Immediately after the beats I heard the points move and thought they had been opened, and I also saw the advanced-signal lowered directly afterwards. Upon the signal falling the guard said, "The signal is off for right away, I think we will go," and he went and waved his lamp to the driver. Before the goods train started I went back to the warehouse, leaving the guard on the left-hand side of the train near his van. When I got close up to the warehouse on my way back, the express passed me, and I shouted out to the driver "Danger," having no lamp to show a light with. I did not try to attract the signalman's attention. I thought a collision would happen and was excited. I could see the light of the advanced-signal from the bell-box, the distance being over 200 yards. When the guard said he meant to go away as the advanced-signal was taken off, I thought the express must have been delayed, and that the signalman had changed his mind. I never gave any other beats on the bell except the two beats. I am not aware whether the goods train had ever set back partly into the siding or not, but I certainly never saw it in the siding.

8. *William Proudlove*, station-master at Hapton; 16 years in the service, three years station-master, 16 months at Hapton.—I was in the booking office on the 12th January when the collision happened. I went to the scene of the collision as soon as I heard of it. It occurred, I think, about 50 yards outside the advanced-signal. Shortly after the collision I think the distance it was possible to see the lights was about

250 yards. I did not ascertain whether the goods train had ever been backed into the siding. Porter Garsden said it had not been. Garsden was the proper man to go down to attend to this train. He had been instructed in the use of the bell code, and had used it on other occasions. The signalman told me he had opened the points without the bell code being used. He was wrong in doing so. I had heard complaints of guards not using the bell code properly, and I told the signalman that they must work according to the bell code, and not move the points until the goods guards had used the bell code properly. I do not know that I had ever said this to Goodwin, as I had not heard him complain. Goodwin was fully acquainted with the mode of working the siding and the use of the bell code, and would have constantly used the bell code during the time he had been porter before becoming signalman.

9. *William Rodger*, driver.—I was driver of the 9.0 a.m. goods train from Barnsley to Rishton on the

12th instant. On approaching Hapton I found the distant-signal at danger, which I sighted when about 30 yards off it. I could see no further in consequence of the fog. Immediately afterwards I noticed a white and green engine head light on my right-hand side, but whether on the main line or siding I could not say. Immediately afterwards I heard the passenger train pass. I was at this time drawing up cautiously to the home-signal, and at this time the fog lifted, which enabled me to see the home-signal, perhaps about 240 yards ahead, and I came to a stand at it. On arriving at the cabin I spoke to the signalman, and went into his cabin to him, and asked him if the goods train was on the main line or siding, and he informed me that it was in the siding. He also informed me that the bell had been rung from the siding, that the train had been shunted clear of the main line. If I had for a moment thought that the goods train was on the main line when passing it I should certainly have opened my whistle to alarm the driver of the express.

Conclusion.

This collision—which took place about 100 yards outside the up advanced-signal at Hapton station, between an up express passenger train and an up goods train, which latter the signalman on duty (Goodwin) supposed had been shunted into a siding in accordance with the instructions he had given to the driver and a station porter (Garsden)—was mainly caused by Goodwin having neglected to carry out the bell code in use for the working of the siding.

According to Goodwin's evidence, he told the driver of the goods train, which stopped opposite his cabin at 6.33 p.m., to draw up and back into the siding, as the express train was at Accrington; the driver appeared to understand what he said, and at once drew ahead to the siding points, which are about 340 yards from the signal-cabin. As soon as the goods train had passed the cabin, Goodwin shouted out to the goods warehouse (just opposite the cabin) for someone to go to the siding points, and he saw a porter (Garsden) running towards them. On hearing the driver of the goods train whistle when he reached the siding points, Goodwin without waiting, as he ought to have done, for two beats on the siding-bell before opening the siding points, did so as soon as he heard the goods driver's whistle, and then, on hearing the siding-bell ring (as he affirms) three times, about eight minutes after he had spoken to the goods driver, he took the bell-signal to mean, "Train shunted in siding clear of main line," and accordingly "cleared back" to Huncoat (the next block station $1\frac{1}{4}$ miles distant), where he knew the express was waiting, received it "On line" at 6.42 p.m., and lowered the up home, distant, starting, and advanced signals, not having been able on account of the fog to see anything of the goods train, but believing it to be in the siding. The express train then passed at 6.47 p.m., at a speed of about 30 miles an hour, and he was not aware there had been a collision until informed to that effect by the driver of a down goods train from Barnsley, which arrived at the down home-signal just as the express train was passing.

It will thus be seen that had Goodwin carried out the bell code, and not opened the siding points until asked to do so by two beats on the bell, he would not have fallen into the error of supposing that the first signal he received (whether two beats as affirmed by porter Garsden, or three as positively stated by Goodwin) meant that the train was shunted into the siding and off the main line, but simply that he was to open the points. Goodwin, although appointed a signalman only a week before the collision, had been learning the duties of signalman during the 12 months he had been in the service. He appeared to be an intelligent young man, and had taken up the night work, after an interval of 12 hours off duty, about three-quarters of an hour before the collision. He urged, in excuse for his offence, that the bell code was not strictly adhered to at Hapton, and that he was working in accordance with what he had found to be a common practice. The signalman, who was master of the position, should certainly not have been the man to break an important rule, and least of all on a foggy night, when strict attention to it was especially necessary.

Porter Garsden, who was sent to the siding points by the signalman, went there foolishly without a hand-lamp; he says he found the goods train on the main line, about 40 yards beyond the points, and did not notice whether they were open or closed, he went to the telegraph hut and gave two beats on the bell to get them opened; the

signal was acknowledged, and immediately afterwards he heard the points move and thought they had been opened, and directly afterwards saw the up advanced-signal (230 yards from the hut) taken off. Upon this signal falling the deceased goods guard said, "The signal is off for right away, and I think we will go." Garsden thought the express might have been delayed, and that the signalman had in consequence changed his mind, when he saw the advanced signal taken off; he went back to the station, and when he had nearly reached the warehouse the express passed him, but having no lamp he could merely shout to the driver.

Garsden is therefore to blame for having on a foggy night gone to perform an important duty without a lamp, and then for having too readily assumed that the signalman had changed his mind with regard to the goods train. If, on seeing the advanced signal drop, he had at once run back to the cabin, and told the signalman that the goods train was on the main line, the express might have been stopped, and the collision might have been prevented.

On the goods train arriving at the siding points, the driver says that after some delay he heard someone (not he thinks the guard) say, "Bring him back inside," and then got a green signal to set back; that after setting back a short distance he got a red light to stop just as the rear brake-van seemed to be on the crossing from the main line to the siding; that the deceased guard then came to the engine, and after some conversation as to what had passed between the signalman and the driver, it was agreed they should start away, the guard saying that the advanced-signal had been taken off. Thereupon the goods train started, and had attained a speed of eight to ten miles an hour when the collision occurred. It is believed the deceased guard Hill had been on the van-step on the left of the train till just before the collision. His body was found near the spot where the collision had occurred, at the bottom of a small embankment on which the railway runs, and he had been killed probably by a splinter from the buffer of the engine of the passenger train. Why he should have stopped the train when it was on its way back into the siding it is difficult to say; had he not done so the collision would not have occurred, and he would not have lost his life. Hill was 37 years of age; he had been 13 years in the service, and three years a goods guard. He had left duty at 2.30 p.m. on the 11th instant and resumed work at 10.45 a.m. on the 12th, about eight hours before the collision. His character was satisfactory.

Considering the explicit instructions the goods driver had received from Goodwin to set back into the siding out of the way of the express, he is, I think, to blame for having so readily consented to go away on the main line; had he been prudent he should at once, upon seeing the advanced signal lowered, have sent back his guard or porter Garsden to the signalman for further instructions, when there would still have been time to stop the express by means of the station signals.

I do not think blame is to be attached to the driver of the express train. On approaching Hapton he found all the signals off, viz., the distant, home, starting, and advanced signals, as he drew near to them; and although he might probably have seen the tail lights and guard's lamp of the goods train sooner than he admits (viz., 20 yards from them), the evidence goes to show that the fog was of a shifting character, and it is quite credible that, though shortly before the collision it was possible to see some 250 yards, a wave of fog may have come over and considerably shortened this distance just as the express train was nearing the advanced signal. The continuous brake with which the express train was fitted evidently did good service in preventing the vehicles from running into each other or rebounding.

I fear there must have been considerable laxity in attention to the bell code for working the distant siding at Hapton, and for allowing this laxity the station-master must certainly be held primarily responsible. The code itself requires alteration to make it strictly applicable to siding points worked (as at Hapton) from a cabin. Two or five beats mean respectively, according to the code, *unbolt* and *bolt* siding points, whereas at Hapton the points are worked and not bolted.

The Assistant Secretary,
Railway Department, Board of Trade.

I have, &c.,
C. S. HUTCHINSON,
Major-General, R.E.