

CAMPBELTOWN AND MACHRIHANISH LIGHT RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, S.W.,
2nd September, 1910.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, in compliance with the Order of the 25th August, the result of my inquiry into the causes of the collision which occurred on the 9th August, between a passenger train and a standing engine at Linecraigs Sidings on the Campbeltown and Machrihanish Light Railway.

In this case the 6.30 p.m. passenger train from Machrihanish collided with an engine standing in the Linecraigs engine depôt sidings.

A cleaner, G. Jamieson, engaged in cleaning the standing engine, was knocked down by the engine, run over, and killed.

The passenger train consisted of a six-wheels-coupled tank engine with a trailing axle, running chimney in front, with brake blocks on the six coupled wheels actuated by steam and also by hand, and of three bogie carriages with brake blocks on all wheels, capable of being actuated by the automatic vacuum brake, in conjunction with the steam brakes on the engine, and also by hand.

The automatic vacuum brake was not in working order at the time of the collision, which occurred at 7 p.m.

The buffer castings of the train engine were damaged.

Description.

This light railway, which is about 6 miles in length, is a single line, 2 feet 3 inches gauge, with one passing place about the middle, called Lintmill, the termini at either end being Campbeltown and Machrihanish. Between Lintmill and Machrihanish there is a siding giving access to a colliery, and between Lintmill and Campbeltown there is a siding with points facing trains proceeding to Campbeltown, leading to the Linecraigs engine depôt and sidings.

The line is authorised to be worked by the electric tablet system under which only one of the tablets applying to any section can be in use at the same time, and it is equipped with Tyer & Company's absolute automatic tablet instruments. These are provided at (1) Machrihanish, (2) the colliery siding, (3) Lintmill passing place, for the Machrihanish section, (4) Lintmill crossing, for the Campbeltown section, (5) Linecraigs sidings, and (6) Campbeltown. These tablet instruments are so connected electrically, that a tablet can be withdrawn for a particular section of the line at either of the three tablet instruments in that section, provided no other tablet is out from the other instruments in that section. Also, if a tablet is restored to an instrument at either of the three instruments in a section, it causes the needle on the other two instruments in the section to show "Line clear," and then a tablet can be withdrawn from either of them. The tablet instruments are worked by the guards of the trains with the exception of one non-stop train in each direction per day, when a man is provided at the Lintmill passing place to hand to and receive from the driver the train tablet.

Evidence.

Alexander Black states: I am superintendent of the Campbeltown and Machrihanish Light Railway. I have been in the employment of the Company for four years. Prior to coming to Campbeltown I was in the employment of the Caledonian Railway Company for 16 years, finishing as inspector. On 9th August last I came on duty at 8 a.m., and at this season of the year am on duty till 9 or 10 p.m. On the evening of that day, I was in charge of the 6.30 p.m. train from Machrihanish. I was acting as conductor. The driver of the engine was James Laing. The train consisted of an engine and three carriages, and there were between 50 and 60 passengers on the train. The train reached Lintmill signal-box at 6.45 p.m., and I went into the signal-box, and put the tablet for the Machrihanish section into the tablet instrument, and, finding the indicator

on the electrical instrument for the section from Lintmill to Campbeltown showing the line clear, I drew the tablet from the instrument to enable the train to proceed to Campbeltown. There are no signalmen, and bell signals are not used. The guards work the tablet instrument. All went well till the train reached the points at the junction with the line leading to the coal depôt at Linecraigs. These points should have been closed, so as to allow the train to proceed along the main line to Campbeltown. The points were not so closed, and the train went into the depôt branch and collided with an engine which was standing, not in steam, on the branch line. George Jamieson, locomotive cleaner, was cleaning this engine at the time of the collision. He was thrown to the ground, run over by the engine and killed instantly. At the moment of impact

there was very little way on the train, as it had been slowed coming down the hill to seven or eight miles an hour, and was probably going slower than usual on account of there being some children near the level-crossing just above the points. Immediately the driver saw that the train was running into the siding, he gave two short blasts of his whistle, indicating that I was to apply the brakes. He himself, I believe, applied his steam brake and hand-brake, and I applied the hand brakes on two of the cars before the collision occurred. I was riding on the front end of the rear car. Before the train left Machrihanish the driver had found difficulty in creating a vacuum to keep the vacuum brakes off the wheels, and I had authorised the train to proceed with the vacuum brakes disconnected. The rails at the entrance to the siding are usually somewhat greasy, as locomotives stand there while getting water, and the brakes, therefore, were not completely effective. The wheels of the engine were locked by the steam brake, but they skidded along the rails. I do not think that even if the vacuum brakes had been working the train could have been pulled up before it struck the engine lying in the siding. The train ran about 80 yards into the siding before colliding with the engine. I am aware that since the points into the siding were open, the tablet which had been used to open them could not have been withdrawn and returned to the electrical instrument at the siding as it should have been, and therefore that the electrical instrument at Lintmill ought to have shown the line to be blocked. The explanation of the instrument at Lintmill showing the line clear is as follows :—Since the 25th of July last, a new time-table has been in operation, the effect of which is that, while a train is run from Machrihanish at 5.10, that train does not return to Machrihanish, but returns instead to the car and engine sheds, where the cars and engine are put away for the night. The driver of the 5.10 train at night is first on duty in the morning to take the 5.50 train to Machrihanish. From 5.50 until 9 o'clock, there is only one engine in steam on the line, and, as it is more convenient in these circumstances to work without the electrical signalling, and as it also affords a good opportunity to clean the batteries attached to the electrical instrument, which require constant attention, I arranged that the electrical signalling should be suspended in the morning during that time. As the points leading into the siding should be closed after the cars and engine have been housed, it is necessary, to enable the driver to take his train out in the morning without setting the electrical signalling in operation, that he should have a tablet to unlock the points. For the purpose of making sure that the driver who was to use the tablet would know exactly where it was, I allowed the driver of the 5.10 train to retain his tablet, and put it away in a locker on the engine, so that he could use it in the morning. To overcome the difficulty thus created by a tablet being out of the instrument, and the indicator at Lintmill showing the line blocked against the 6.30 p.m. train from Machrihanish, I instructed William Black, who is assistant superintendent, and who acted as conductor of the 5.10 train from Machrihanish, to return with the driver to the engine sheds to close the points and hand the tablet to the driver, and thereafter to irregularly release the electrical instrument at the sheds, so as to show the line from Lintmill to Campbeltown clear. On the night in question I was at Machrihanish when the 5.10 train left, and I repeated these instructions to William Black, and gave him the key which unlocks the tablet instruments. There is

only one such key in use on the line, and I keep it in my possession. I was not aware that on several previous occasions William Black had not himself gone with the empty cars to the siding but had sent the boy Norman O'May instead, nor that he had cleared the line from Campbeltown instrument instead of from the instrument from the sheds after he had himself closed the points. There are telephones for use at all the tablet stations.

William Black states: I am assistant superintendent of the Campbeltown and Machrihanish Light Railway, and act as guard or conductor of the passenger trains. I have been in the employment of the Company for three years. I had no previous railway experience. I came on duty on the 9th August at 9 a.m. to finish at 8.40 p.m. I was conductor in charge of the 5.10 p.m. train from Machrihanish on the 9th of August. The superintendent was at Machrihanish when that train left. Before the train left he instructed me after arrival at Campbeltown to proceed with the cars and engine to the siding to close the points after they were in, and clear the line to Lintmill by irregularly releasing the magnet in the electrical instrument situated at the sheds. He gave me the key with which to unlock the tablet instrument. The 5.10 p.m. train arrived at Campbeltown about 5.40 p.m. The engine was reversed and the train got ready for going to the siding. I found on arrival at Campbeltown that there were a lot of enquiries regarding parcels, &c., to attend to and I had some writing to do. I therefore instructed the boy Norman O'May to proceed with the cars to the car sheds and I handed the tablet, which I had taken out of the instrument at Lintmill, to the driver of the train. I had on several previous occasions during the preceding week under similar circumstances sent the boy with the empty carriages. On these occasions I had always instructed him to see that the points leading into the siding were closed before leaving and to hand the tablet to the driver. The driver on this occasion was Hugh Harper. On previous occasions the driver had been alternately Harper and another man. On every occasion when I sent the boy with the cars, besides instructing him to close the points, I told the driver to see that the boy did so. On the 9th of August I omitted to give special instructions either to the boy or to the driver, but I knew that both perfectly understood that the points ought to be closed. I considered that the boy was perfectly capable of opening and closing the points, otherwise I should not have allowed him to go. The engine and cars left Campbeltown about 5.45 p.m. The time required to allow the engine and cars to go to the siding and to be housed for the night was usually five to ten minutes. I allowed about a quarter of an hour to elapse and relying upon the points being closed as usual, I irregularly released the magnet in the instrument at Campbeltown thereby setting the line clear from Lintmill to Campbeltown. I left the office at 6.25 p.m. Between the time when I cleared the line and the time when the 6.30 from Machrihanish was due to reach Lintmill there was three-quarters of an hour, and I considered that if by any chance anything occurred to prevent the engine and cars getting into the siding, or in the event of their breaking down on the way to the siding, there was ample time for the boy to go back to the office and inform me so that I could stop the train at Lintmill, and there was also time for the driver to go to the tablet instrument at the engine sheds and do the same thing there. This working has been going on since the 25th July, when an extra train (the 6.30 p.m.) was put on.

James Laing states : I am an engine driver in the employment of the Campbeltown and Machrihanish Light Railway Company. I have been in their employment since June, 1909. I was 4 years a driver with the Caledonian Railway. On the 9th August I came on duty at 9.30 a.m. to finish at 9.30 p.m. At the time when the accident happened on the 9th August I had been on duty for 9½ hours. I was the driver in charge of the 6.30 p.m. train from Machrihanish. All went well until the train reached the points leading to the coal depôt siding, when, on account of the points being set the wrong way, the train entered the siding and collided with a stationary engine which was standing there. I saw they were lying the wrong way when about 20 yards from them. Coming down the slope approaching the siding trains always go slowly—never more than about 10 miles per hour. On the evening in question I was not going any more quickly than that—probably 7 to 8 miles per hour—because, in addition to exercising the usual care coming down the hill, I observed some children playing near the level crossing, which is above the siding points, and I was keeping the train well under control. Immediately I felt the train going into the siding I gave two short blasts of my whistle to indicate to the conductor to apply the brakes. I myself applied the steam brake and hand brake. I would also have applied the vacuum brake, but it had got out of gear before leaving Machrihanish, and the superintendent authorised me to come on with steam and hand brake only. So far as I could judge, the distance between the points and the stationary engine standing in the siding was about 80 yards. I do not think that even with the vacuum brake I could have pulled up in time to avert the collision, because the rails are greasy at this particular point on account of the engines frequently standing there when getting water, and the wheels of the engine, which were locked by the brakes, skidded along. When we struck the stationary locomotive I do not think the train would be moving at more than 2 miles per hour. My engine is a six-wheels-coupled tank engine with a trailing axle, with brake blocks on the six coupled wheels actuated by steam and by hand. The same handle applies the vacuum brake on the carriages as the steam brake. I usually have 160 lbs. steam pressure, but that day, owing to a leaky tube I could not keep that pressure when running, and had difficulty in keeping the vacuum, and on the outward journey the brake blocks kept grinding against the wheels. I usually work with 22 inches of vacuum. I was running chimney first, and hit the bunker of the other engine. It was about 7 p.m. when the collision occurred.

Norman O'May states : I am 16 years of age and am in the employment of the Campbeltown and Machrihanish Light Railway Company, and have been with them for 2½ years. My duties consist of keeping the office at Campbeltown, receiving and delivering parcels and other odd jobs at Machrihanish. I have also frequently

been engaged cleaning the cars in the car sheds, and I have occasionally travelled in the train issuing and collecting tickets along with the superintendent or assistant superintendent. I am quite familiar with the opening and closing of points with the use of the tablet. On the night of the 9th August I was instructed by William Black to proceed with the empty cars of the 5.10 train to the car sheds. I did not receive any special instructions as to my duties, but, as I have performed this work several times previously, I understood what was required. Before leaving Campbeltown I got the tablet from the driver and on arriving at the siding I put it into the points frame and opened the points. Thereafter I went with the cars into the car shed and uncoupled them from the engine. The engine had a little shunting to do, viz., to draw the engine "Princess" out of the engine shed and lay it on the siding out of the way, and, for this purpose, required to come up close to or over the catch points, and accordingly the points were not closed at once as was usually done. After the "Princess" was drawn out of the engine shed and shunted along the depôt siding, I went away for the night along with the driver Harper, but omitted to close the points before doing so. I forgot all about it. On previous occasions when I had performed this duty I was instructed by William Black to see that the points were closed after the cars and engine were put away, but he did not remind me to do so on this occasion. On previous occasions after I closed the points I always handed the tablet to the driver, or, if I did not actually put it into his hand I laid it on his engine and called to him that I had put it there. On the occasions when I handed the tablet to him he put it in his locker.

Hugh Harper states : I am an engine driver in the employment of the Campbeltown and Machrihanish Light Railway Company. I have been in their employment for 4 years. Prior to that I was with the Caledonian Railway Company for 7 years. On the 9th of August I went on duty at 5 a.m. and went off duty at 6.20 p.m. During that time I did four double trips to Machrihanish. I was in charge of the 5.10 p.m. train from Machrihanish. After arriving at Campbeltown the engine was reversed and the cars were taken to the car sheds to be put away for the night. The boy Norman O'May was acting as conductor. Before we left Campbeltown I gave him the tablet to open the points. On arriving at the siding he opened the points and then proceeded with me to the car sheds. The carriages were uncoupled from the engine and left in the shed. The engine thereupon returned to the depôt siding, proceeded to the engine shed, drew out the engine "Princess" and backed her along the depôt siding. After doing a little work on my locomotive I left for the night along with the boy Norman O'May. The boy usually tells me he has put the tablet on my engine for the morning trip, but that night he did not, and I did not think of asking him about it.

Conclusion.

The circumstances attending this collision on the 9th August were as follows :—
On the arrival of the 5.10 p.m. train ex Machrihanish at Campbeltown, the guard, W. Black, instead of going with the empty carriages to Linecraigs sidings and seeing them put away, told N. O'May, a boy of sixteen, who does odd jobs about the railway, to go instead, and the driver H. Harper handed the tablet to the boy so that he could open the points of the sidings on arrival. This was done, and the tablet left in the ground frame and the points left open while some shunting was done at the depôt, and then driver Harper and O'May left for the night, leaving the points open for the siding and the tablet in the ground frame, the boy quite forgetting to close the points and take out the

tablet. When the following train from Machrihanish, the 6.30 p.m., arrived at Lintmill crossing, the tablet instrument there for the section Lintmill-Campbeltown should have shown "Train on line," as there was a tablet for that section out, viz., the one left in the ground frame at Linecraigs sidings; but before leaving Machrihanish with the 5.10 p.m. train W. Black had been told by A. Black, the superintendent of the Light Railway, to give the tablet used by the 5.10 p.m. train to the driver, H. Harper, after the empty train was put away, so that he would have a tablet ready to enable him to get out of the sidings in the morning with the first train (5.50 a.m. train ex Campbeltown) of which he was to be the driver.

A. Black also gave W. Black the key of the tablet instruments and told him after seeing the 5.10 p.m. train put away and giving the tablet to the driver, to irregularly release the tablet instrument at Linecraigs sidings, so that the 6.30 p.m. train could get out a tablet on arrival at Lintmill crossing. W. Black did not go to Linecraigs, but sent the boy O'May as mentioned above, but when he thought he had allowed sufficient time for the empty 5.10 p.m. train to have got into the sidings at Linecraigs, he irregularly released the tablet instrument at Campbeltown, which had the effect of making the instrument at Lintmill crossing show "line clear," and also enabled the guard of the 6.30 p.m. train, A. Black, to release a tablet from it, although one tablet was already out for that section.

Accordingly the 6.30 p.m. train proceeded, and on arrival at Linecraigs ran into the siding as the points were open, and after going a distance of 80 yards along a siding collided with an engine which was being cleaned by G. Jamieson, which ran over him with fatal results.

It will be seen from the above that the collision was due primarily to the action of A. Black, the superintendent of the line, in authorising irregular working in connection with the tablet instruments. His evidence gives his reasons in detail, and they were apparently not to save himself, or other men, trouble in the early morning, but a desire to save the expense connected with the wear of the electric batteries, by suspending tablet working until 9 o'clock in the morning, as, prior to that hour, there was only one engine in steam in use on the line, and the suspension of tablet working enabled the batteries belonging to the tablet instruments to be overhauled and cleaned. But, as it was necessary for the driver of the 5.40 train in the morning to have a tablet in his possession, to open the points of the sidings, the superintendent arranged for the irregular working described above to be carried out by the guard of the 5.10 p.m. train (W. Black). If the tablets had all been restored to the instruments overnight, as they should have been, the driver or guard of the 5.40 a.m. train, in getting out the tablet from the instrument at Linecraigs sidings, would have set the electrical tablet working in operation, which was not desired.

The guard of the 5.10 p.m. train, W. Black, explains that the reason why he did not go himself with the empty carriages, and see them put away in Linecraigs sidings, was that on arrival at Campbeltown he found he had a lot of writing to do before going off duty, so he sent the boy O'May instead, as he had done on several previous occasions. He not only irregularly released the tablet instrument at Campbeltown, but took a further dangerous course in releasing it before he knew that the 5.10 p.m. empty train had got into the sidings. He assumed that it would be inside after a quarter of an hour from leaving Campbeltown, and then released the tablet instrument after opening it with the key given him by the superintendent, A. Black.

The boy, O'May, perfectly understood what was required of him, but as the siding points at Linecraigs had to be left open for a short time after the arrival of the empty train, for shunting purposes, he afterwards entirely forgot to close the points and take out the tablet, and driver H. Harper, although usually receiving the tablet overnight, did not notice on this occasion that it had not been given to him, or placed on his engine.

With regard to the actual collision, the driver of the 6.30 train, J. Laing, said he did not notice that the points at Linecraigs siding were open until he was about 20 yards away from them. He says his attention had just been occupied by some children playing near the level-crossing, just above the siding points, or he might have seen that the points were in the wrong position earlier. He states that he was not travelling at more than eight or ten miles an hour, and he immediately sounded his whistle for the guard to apply the hand brakes, while he himself applied the steam brake on the engine. Unfortunately the automatic vacuum brake was not in operation on the three coaches of the train, as, owing to a leaky tube in the boiler, Laing states that he was unable to keep up the necessary boiler pressure, when running, to create a sufficient vacuum to hold the brake blocks off the wheels, and that the blocks had been grinding against the wheels somewhat on the outward journey.

Both the main line and the siding into which the train ran are on a steep gradient, viz., 1 in 50 falling, and the rails were somewhat greasy inside the points, so driver Laing could not quite stop his train before colliding with the stationary engine about 80 yards inside the sidings. The collision was a very slight one, only two buffer-castings on the engine being cracked and no damage done to the carriages. But unfortunately the standing engine was being cleaned by cleaner G. Jamieson, and he was knocked down and run over by it with fatal results.

This sad accident shows the necessity of always working in accordance with rules.

The key which unlocks the tablet instruments should only be used in case of a breakdown of the system or of some emergency, after all the regulations laid down for such occasions have been complied with.

The irregular method of releasing tablets, which took place for a fortnight, cannot be too much condemned, and should on no account whatever be permitted.

I am informed by the Company that it ceased at once after the accident.

I have, &c.,
E. DRUITT,
Lt.-Col.

The Assistant Secretary,
Railway Department, Board of Trade.

Printed copies of the above Report were sent to the Company on the 28th September.

GREAT NORTHERN (IRELAND) RAILWAY.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.,
19th August, 1910.

SIR,

I HAVE the honour to report for the information of the Board of Trade, in compliance with the Order of the 8th August, the result of my inquiry into the causes of the collision which occurred on the 6th August, between a passenger train and a coal train at Dundalk on the Great Northern Railway of Ireland.

In this case as the 12.46 p.m. passenger train of the Dundalk, Newry and Greenore Railway, was running between the Central and West Cabins, Dundalk, it came into collision with the rear of a brake van and 12 coal waggons which had been left standing on the down main line.

The driver and fireman of the passenger train were killed.

No wheels of the passenger train were derailed, but the brake van and waggon next it, were partially derailed.

The passenger train consisted of a six-wheels-coupled saddle tank engine running bunker first, and of three six-wheeled coaches and a six-wheeled brake. The last-named was next the engine. The train was fitted with the automatic vacuum brake working blocks on the outside pairs of wheels of all the coaches—and the engine with the automatic vacuum brake, and a hand brake, working blocks on all six wheels.

The collision occurred at 1.5 p.m.

Details of damage to rolling stock are given in the Appendix.

Description.

The main lines through Dundalk run approximately north and south, and about 350 yards south of the station the single line from Barrack Street to Enniskillen crosses the main lines at right angles on the level.

There is a double connecting loop line between the main lines at the station and the single line to Enniskillen, the junction at the station being worked from the Central signal cabin, and the other from the West signal cabin. The junction at the latter is not a double one, but the single line from Barrack Street runs straight into the up line, and there is a cross-over road for trains going on to the down line.