ACCIDENTS APPERTAINING TO THE MANAGEMENT.

COLLISIONS BETWEEN TRAINS FOLLOWING EACH OTHER ON THE SAME LINE OF RAIL.

CHESTER AND HOLYHEAD RAILWAY.

Sra.

In compliance with the instructions contained in your letter of the 14th instant, I have the honour to report, for the information of the Lords of the Committee of Privy Council for Trade, the result of my inquiry into the circumstances which attended the accident, that occurred on the 10th instant, near the Banger Station of the Chester and Holyhead Railway.

A special train, composed of two engines and tenders, thirteen loaded wagons, twenty empty cattle trucks, and a van, left Conway Station at 10:30 a.m. on the day in question; and the small train, which was five minutes behind the main train, left it from Conway at 11:50. The former is stated to have travelled at the usual speed for such trains, twenty miles an hour, until it was within three miles of Banger, when the engine went loose in the valve of the tender of its leading engine, and the tender became so hot that a burning gradient of 1 in 32, the speed was reduced to fifteen miles an hour.

As this train was passing the Penfian Mills, one and a half miles from Banger, it was run into by the mail, the driver of which dipped into a goods yard distance of 800 yards, on account of the curves on which it was on. He did his best, however, to pull up in that space, and the speed of his train was reduced to such an extent that when the collision occurred no damage was done to the stocks, and the passengers escaped, with no injury. Some of the wagons of the special train were, however, uncoupled and left on the line, while the rest of them were coupled with the remainder to Bangor, in entire ignorance of what had occurred.

Two persons were riding in the van of the goods train at the rear of the goods train, who had previously remained at Conway, and had taken this opportunity of travelling to Bangor. One of them saw the mail pursuing them shortly before the collision occurred, and the breachman warned his red train lamp to it, as an indication of danger in addition to that afforded by the lamp on his van; but, seeing that it would not be possible for the mail train to pull up, he got into his van again and lay down to await the shock, leaving his comrade standing on the step. The latter then either had jumped off and lost his footing in the darkness, or been thrown under the wheels of the collision, for his body was afterwards discovered between the rails, with the head dreadfully mangled. The breachman himself escaped with some slight bruises, and a small cut on his forehead.

The signalman at Conway had carefully entered in his book the times of departure of these two trains, and he states that he remarked to the driver of the second engine of the goods train, that it would be necessary for him to clear the main line before the mail train arrived; but the driver denied this, and said that no warning had been sent from the station where the mail train started to the driver of the latter, a man who is expected to travel at express speed, and to be particularly punctual, of the positive fact, and the general danger which must be prepared to encounter.

The true cause of the collision is sufficiently evident. Two trains were started from Conway for Bangor, at a distance of fourteen and a quarter miles, the one to travel at the rate of twenty miles an hour, and the other, following fifteen or sixteen miles afterwards, to travel at a speed of forty miles an hour.

Under these circumstances, simple calculation will show that the latter ought to have overtaken the former, in its present state, in eleven and one-third miles, at three miles from Bangor, or about the place where the leading engine first began to fail; and although it did go a little farther, in spite of the partial failure of one of its engines, before it was stopped, the impression was that the drivers did not keep precisely to what they will be able to do so, and that the train must be adjusted to it. Now, there are two remedies, by which such a catastrophe may be prevented from occurring again, namely, either to work the line by telegraph, taking care that no two trains shall be between any two telegraph stations at the same time, or to increase the interval between trains, and at different rates as to provide for their entire separation.

The former of these is no doubt the more expensive in first cost, but it is the more certain, while the latter amendment, involving the same difficulty for each separate case, must necessarily be left to a certain extent, as most necessarily he left to the judgment of judges, such men as drivers and signal men, and must be liable to be misapplied: besides, which of them leaves open the door to numerous other dangers, such as collisions consequent upon the failure of engines, or accidents to trains of many descriptions. At all events, the telegraph, which only enforces an interval of five minutes between the trains and directs that a caution signal is to be displayed for an additional five minutes, is inadequate to secure the public safety in such cases as those in question.

I am, &c.

H. D. T. REEVE,
Cpt. Royal Engineers.

The Secretary of the Railway Department, Board of Trade.

CHESTER AND HOLYHEAD.

Sra.

In compliance with the instructions contained in your letter of the 14th instant, I have the honour to report, for the information of the Lords of the Committee of Privy Council for Trade, the result of my inquiry into the circumstances which attended the accident, that occurred on the 10th instant, near the Banger Station of the Chester and Holyhead Railway.

The two stations on this branch, at Hope and Broughton, are, respectively, 7 and 8 miles to the west of Chester; and a heavy incline, commencing at 2 p.m. from the former, descends on a gradient of 1 in 36 for 100 chains, and in 1 in 25 for 7 chains further, towards the latter. This portion of the line is also curves, and the view is certain extent impeded by overbridges and by trees.

It will be observed by the accompanying section, with which the engineer has been so good as to supply me, that a rise of 1 in 25 for 17 chains (B) follows the incline above referred to (AB), and E may mention that the precaution (C) is visible from the centre of that incline (D), while the lower parts of the road (B) are obscured by the trees.

On the 10th instant, a cattle train composed of an engine and tender, 18 loaded cattle trucks, and a second and a third class carriage, and a van, left Mold at 8:30 a.m., half an hour late, passed Hope slowly at 9:30, and stepped at the top of the incline, in accordance with the usual custom, that some of the back trucks of the mail train would not have been in the position of the other, and that the mail train would not have been in the position of the other, and that the mail train would have been uncoupled from the remainder of the train. Some passengers, who were at work on the line, saw what had happened, and drew the attention of the driver to it as he passed, and the latter hastened on these lines that the mail waggon might not overtake him.

The breackman, finding that the mail was getting out of his way, then took off his break, and, aware that another train was following, hoisted that the impatience he acquired in descending the incline would carry him over the top of the incline, and to this end, the signalman, whose name is not known, got out of the van and ran back some 500 yards, out of a particular purpose with his red flag.

The train which I have referred to as the mail train, was composed of an engine and tender, 15 loaded coal wagons, and a van. It was composed of a station of Hope, at 4:20 p.m., having passed through the cattle train to pass, and reached Hope just as the cattle train went through that station. It was then brought to a stand, and kept for five minutes, to give time for the other train to get out of the way, and it was allowed to start at the end of that period with a warning to the driver.

The coal train was brought to a stand also at the top of the incline, and six of the trains being passed by the mail train was again started, the driver not being able to keep up his speed, and after passing some four miles an hour had been attained. This speed, however, gradually increased, and by the time the driver saw the signalman, he was travelling at the rate of 15 miles an hour. Then, reaching the crest over a wagon, passed to the engine, and, letting down the break, the whole train was passed over the wagons and ploughed down the break of the incline. The passing through a bridge situated at 4 miles from the summit, and 1 mile from the bottom of the incline, the mail train then passed over the track, and the engineer, proceeding to Brindley, on account of the track being somewhat worn, that some of its trucks had been detached.

I reach the lower part of the line, he thought that all was right. He did not, however, take off any of his breaks, though he threw the train back at his engine a second or two, and send a man back, until, rounding the curve, he perceived the goods train only 1,000 yards in advance, the driver again changed his engine, and turned his train, his only remaining resources.