LONDON AND NORTH WESTERN RAILWAY.

Ministry of Transport, Public Safety and General Purposes Department, 28, Abingdon Street,

Westminster, S. W. 1.

17th December, 1919.

I have the honour to report for the information of the Minister of Transport, in accordance with the order of the 28th November, the result of my Inquiry into the circumstances of a collision, which occurred at about 3.25 a.m. on the 21st November, at Gibbet Hill, near Coventry, on the London and North Western Railway.

The 2.50 a.m. up passenger train from Birmingham to Leamington, after leaving Coventry, collided with the rear of a coal train, which was standing on the loop line opposite Gibbet Hill signal-box. The 3.0 a.m. down goods train from Leamington to Crewe, which was running at the time on the single line alongside the loop, came into collision with some of the derailed vehicles of the coal train.

Fortunately there was only one case of personal injury ; a passenger in the Leamington train being slightly hurt.

The collision between the passenger train and the standing coal train resulted in considerable damage to the latter. The brake-van and the four rear wagons were badly broken up, and two other wagons were derailed. There was no derailment of the passenger train, and the damage to the coaching stock was slight, being chiefly confined to broken glass. The engine was more considerably damaged, but not derailed. One wagon of the 3.0 a.m. goods train was derailed, and the engine of this train slightly damaged. As regards permanent way, a number of chairs, sleepers, etc., were broken, and one 57 foot rail was bent.

The composition, etc., of the three trains concerned was as follows :----

Passenger Train—Eleven long buffered bogie coaches, fitted throughout with the vacuum brake, total weight $278\frac{1}{2}$ tons; drawn by engine No. 1680, 4–4–0 type, with sixwheeled tender, fitted with the vacuum brake, operating blocks on the coupled engine and the tender wheels, and with a hand brake operating the same blocks on the tender wheels.

Coal Train-2 goods wagons, 40 loaded and 1 empty coal wagons, and a 20-ton brake van, drawn by a 0-8-0 type engine, with six-wheeled tender; weight in working order $93\frac{1}{4}$ tons.

Goods Train—20 wagons loaded with ironstone and 20-ton brake-van, drawn by a 0-6-0 type engine, with six-wheeled tender; weight in working order, 63 tons.

The morning was dark but clear, and there was a moderate wind blowing from the north or north-west, with rain or sleet, which appears to have stopped just before the accident.

Description.

Gibbet Hill signal-box is situated on the Coventry-Learnington branch of the Company's system. It is the next block post, in the up direction, to Coventry No. 1, and between these two posts, which are about $2\frac{1}{4}$ miles apart, the line is double. From Gibbet Hill in the up direction the line is single, the next block post being Kenilworth Junction. The section of line concerned runs approximately south-west from Coventry, and the up road is continued past Gibbet Hill box to form a loop line, with an overrun terminating in a buffer stop a few yards south-west of the down home signal. There are two cross-overs between this loop line and the single line, both facing in the down direction; one of these is north-east, and the other south-west, of the signal-box. A few yards in the Coventry direction beyond the former is a trailing cross-over between the up and down main double line, and immediately north-east of this is the up home signal. Disc signals are provided under both up and down home signals (which have repeater arms.) for movements into the loop. The signal cabin is situated between the main line and the loop, about midway between the loop cross-overs. The formation at the signal-box is on a low embankment, and the post is approached from the Coventry direction through a shallow cutting. The alignment between the up distant signal and the signal-box is straight, and there is a falling gradient of 1 in 102 from this signal to the north-east loop points.

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SIR,

Measured from the centre of Gibbet Hill signal-box, the approximate distances to the various points, signals, etc., concerned are as follows :----

Down home signal	••	280 ya	rds S.W	7.
Point of collision on loop	••	117	,, N.E	E.
Facing points of loop cross-over, on up main line	••	232	,, ,,	
Up home signal, and loop disc	••		,, ,,	
Up distant signal (fixed at danger)	••	1,036	,, ,,	

A few yards on the Coventry side of the up distant signal is a road overbridge, which is approached from the Coventry direction on a rising gradient of 1 in 184.

Conclusion.

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The circumstances in which this collision occurred are as follows.

The up coal train to Learnington was offered from Coventry No. 1 signal-box to Woolley, signalman on duty at Gibbet Hill, at 3.2 a.m., and accepted at once. Woolley intended to send this train over the single line to Kenilworth without delay, and offered it forward accordingly. He received acceptance, but was asked subsequently by the Kenilworth signalman to cancel this offer, and to give the up mail train, i.e., the 2.50 a.m. passenger from Birmingham to Learnington, precedence. Woolley therefore decided to admit the coal train into the loop, and to keep it there until the up mail, which was following, had passed. He therefore set the road and admitted the train, which came to a stand at 3.20 a.m., with the brake van some 115 yardson the south side of the loop points. Just as the coal train was drawing into the loop, Woolley accepted the down goods train from Kenilworth.

At 3.22 a.m., Coventry No. 1 offered the up mail to Woolley, who accepted it at once, under the "Warning." This warning acceptance is authorised, in the case of a train from Coventry, which is offered when a train has already been accepted on the single line from Kenilworth, and the loop is occupied.

At 3.25 a.m., the down goods train arrived, and the driver handed in the staff to Woolley. Immediately afterwards the up mail came up and, passing the home signal at danger, came into collision with the standing coal train. The collision resulted in some of the debris of the rear wagon of this train being thrown foul of the single line, just as the engine of the down goods reached the spot, with the result already reported.

There is no dispute in regard either to the receipt of the "Warning" at Coventry No. 1 box by Robert Voss, the driver of the up mail, or to the danger position of the up line signals. Voss however states that the light of the distant signal was out, and that, in consequence he did not realise that he had passed it until he had practically arrived at the home signal. The lights of this home signal, he says, are generally visible from the overbridge on the Coventry side of the distant signal, and he can only account for not having seen them earlier on this occasion by the presence of " steam, which was coming from a down train." Voss states that when he first saw the home signal he was travelling at between 5 and 10 miles an hour, and had the brake slightly applied; and that he then fully applied the vacuum brake, and did all he could to stop. He added latter that he reversed his engine and applied steam. The wheels did not, in his opinion, pick up.

Preston, his fireman, states that he was engaged with his injector, and was not looking out on the road as his engine passed under the bridge, and that he did not see the distant signal. According to his evidence, as soon as he had finished with the injector, he looked towards Gibbet Hill and saw the home signal, when his engine was "about 400 yards away, travelling at 10 miles an hour," and that at this time his mate "had the brake on hard." Preston states that he released sand, but thinks that the wheels picked up, and seemed to be skidding all the time. At any rate, the brakes did not seem to him to have very much effect.

Slinn, the guard of Voss's train, was not observing the road at all, as he was engaged in sorting parcels. He felt no application of the brake before the collision occurred, at which time he estimates the speed of his train to have been between 10 to 15 miles an hour.

Voss had some conversation after the accident with Woolley and Slinn. According to the evidence of both these men, Voss said to them that he had mistaken the home for the distant signal, and that the light of the latter was out. Wall, a porter under instruction as a signalman in Gibbet Hill box, confirms Woolley's evidence in this respect. It should be noted in this connection that the home signal in question has two arms and lights, and that there is a disc signal at the foot. The distant signal has only one arm and light. 2. In regard to Voss's statement that the distant signal light was out. The back light of this signal was last observed by Woolley between 2.30 and 3.0 a.m., when it appeared to be burning all right. Wall remembers having seen it about two hours before the accident; it did not then appear to him to be shewing quite so bright a light as it usually does.

Hiett, the driver of the coal train, who preceded Voss by some five minutes, stated that the distant signal light was not so good as usual, but that he had no difficulty in seeing it as soon as he got through the bridge; he added that the home signals were shewing a good light, and that he saw them, as usual in clear weather, from a distance of about a quarter of a mile on the Coventry side of the overbridge. Hiett's guard, Brown, gave similar evidence, and added that he saw the distant signal post as he passed it.

About half an hour after the accident, when the question of the distant signal light was raised, Woolley sent Wall along the line to ascertain the state of affairs. Wall's evidence is as follows :---

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After passing the tail of the up passenger train, he looked for, and saw, the back light of the distant. At about this spot he met Voss, apparently walking from the signal, who said that it was no use his going there as the signal was out. On arrival at the signal, Wall found the flame very low, and the wick charred. He pinched off the charred end, and readjusted the flame, afterwards returning and reporting to Woolley accordingly.

Voss states that he walked back to the distant signal after the accident, and saw no light, though he went about 100 yards past the signal and looked back. He says that, on his return, he met Wall about 40 or 50 yards on the Gibbet Hill side of the signal, and that he then stood and watched him ascend the ladder. He gave it as his impression, although he affirmed that it was very dark, that Wall lit the lamp. Preston, his fireman, stated that, on his return from this visit, Voss told him that he saw a lad going up the ladder to light the lamp, as he was standing at the foot of the signal.

3. The cause of the accident was, beyond question, the fact that Voss, the driver of the passenger train, passed his home signal at danger. In regard to the distant, the evidence proves, in my opinion, that the light was not out when Voss passed it, although it was only burning dimly. The position of this signal is clearly indicated by the overbridge, which is only a few yards from it, and coincides with a marked change in the gradient. Voss was, as he admitted, well aware of the proximity of this signal to the bridge, which he remembers passing under. He stated that he knew the road "fairly well," and at any rate considered himself quite competent to take a train over it without the assistance of a pilotman. He had driven this particular train on the four previous days of the week in question. I cannot accept Voss's excuse in regard to the obscuration of the home signal lights by the steam, etc., from the engine of the down train, which cannot, at the time when Voss was passing under the bridge, have travelled much, if at all, beyond the signal-box, some 300 yards on the far side of the up home. All the witnesses are agreed that the wind was blowing more or less straight across from the down to the up line.

Voss's evidence was unsatisfactory, and shewed a regrettable and unusual lack of candour. It conflicts in certain important particulars with that of other witnesses, particularly in regard to the application of his brake, and the condition of the distant signal light, both before and after the accident. In regard to the former point, the fact that he ran 115 yards beyond the home signal either implies that he approached this signal at a speed altogether unjustified, in view of his receipt of a verbal warning—which he admits having been given—or else that he failed to apply his brake until immediately before the collision, if indeed he did so at all. From the evidence of his guard, Slinn, and from the violence of the impact, it is my opinion that he did not apply his brake, or realise the obstruction in front of him, until the accident occurred.

As regards the distant signal light, I cannot, in view of the other evidence, accept Voss's contention that it was out ; even if it had been, its position is well defined by other physical conditions, of which Voss was well aware, and his duty in the case of non-observance is clear.

My conclusion is that Voss was guilty of very serious inattention to his duties, for which I can see no extenuation, and he must take full responsibility for the accident. He is an experienced driver, with 24 or 25 years' service as such. He had been on duty for some 2 hours at the time, after a spell of rest of about 16 hours.

4. Although I can find no excuse for the driver's failure in this case, there are certain points arising out of the circumstances on which comment is desirable :

(a) It appears that signal light failures in this district have been somewhat common recently, two of the lamps at Gibbet Hill having been found unlighted when they were removed for cleaning on the last occasion previous to this accident. Neither of these, incidentally, was that afterwards put into the up distant signal, though it is clear from the evidence that the latter was in such a condition that it would probably have failed before long. The particular failures referred to were not apparently reported until after the accident, but other adverse reports on the lights on the Nuneaton Branch have been notified within the last few weeks, and in consequence arrangements have been made for test of the oil.

The Company will, no doubt, give the matter their attention, with a view to the prevention, as far as possible of failures of the kind.

(b) I understand that, in pursuance of their policy of avoiding the warning acceptance wherever possible, the Company is considering the installation of a down outer home signal at Gibbet Hill. This will of course necessitate resiting the present distant signal. If however the Company decides not to instal this outer home and therefore to retain the warning acceptance, it would, I think, be desirable in view of the falling gradient to make some alteration to the down distant signal, either by lowering a few inches the existing arm and light, which are at present somewhat masked by the overbridge to which I have referred, or by resiting the post on the Coventry side of this overbridge.

I have, etc.,

G. L. HALL,

Major, R.E.

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The Assistant Secretary, Public Safety and General Purposes Department, Ministry of Transport.