MINISTRY OF WAR TRANSPORT ENQUIRY INTO ACCIDENT AT POTTERS BAR ON: 1 CTH FEBRUARY, 1946, HELD AT LIVERPOOL STREET ON 15TH FEBRUARY, 1946.

PRESENT :

Ministry of War Transport.

Lieut. Col. Sir Alan Mount C.B., C.B.E. (Inspecting Officer)

Railway Representatives.

Operating Department.

Mr. H.C. Johnson, Assistant Superintendent (Southern Area). Mr. W.E. Green, District Superintendent, Knebworth.

Locomotive Running Superintendent's Department.

Mr.	G.A.	Musgrave,	Locomotive Running Superintendent,
	_		Western Section, Southern Area.
Mr.	J, A.	Frampton,	District Locomotive Superintendent,
			King's Cross.

Engineer's Department.

Mr. G.B. Barton,	Engineer (London), King's Cross.
Mr. A. Moss,	Assistant to Engineer (Signals), King's Cross.
Mr. H.S. Davies,	District Engineor, King's Cross.

Chief Mechanical Engineer's Department.

Mr. G.H. Taylor, Assistant Car	riage & Wagon Works Manager,
Mr. P.C. Barker, Outdoor Carri Bounds Green.	age & Wagon Assistant,

Union Representatives.

Mr.	A, E.	Goss,	National Union of Railwaymen.
Mr.	₩.J.	Cleaver,	Associated Society of Locomotive
			Engineers and Firemen.

LIST OF WITNESSES.

Lineman Edward Cornell	POTTERS BAR.
Driver Stanley Trigg	KING'S CROSS.
Fireman Leonard James Dungate	KING'S CROBS.
Quard Mrs. Florence May Haden	KING'S CROSS.
Fireman Robert Edgar Harsley	GRANTHAM.
Guard Wilfred John Pelling	KING'S CROSS.
Fireman George Sims	PETERBOROUGH.
Guard John William Chappell	DONCASTER.
Signalman George Thomas Baines	POTTERS BAR SIGNALBOX.
Signalman Colin Charlos Willis	MARSHMOOR SIGNALBOX.
Signalman Harold Stanley Colbert	GREENWOOD SIGNALBOX.

Drivers Charles Inmonger of Grantham and Sidney Thomas Churchill of Peterborough were not sufficiently recovered to enable them to be present to give evidence.

In attendance :-

Sydney Raymond Mills, Chief Signal & Telegraph Inspector, King's Cross.

LIEUT. COL. SIR ALAN MOUNT'S OPENING STATEMENT :-

In opening the Enquiry the Minister has asked me to express his sympathy with the relatives of those who died, and those who were injured. I expect you have the numbers available. We had better deal with that, and then I should like a brief statement of how the relief work was carried out, the assistance rendered, what modical aid was available, etc., and when the lines were cleared. We could then go on to the information relating to the trains and the engines concerned - there were three passenger trains concerned in this case - and the damage to the stock and the permanent way. I then want the numbers of the passengers in each train; where the casualties occurred; the train lighting, buffering, types of stock, and description of collision. Then I will deal with the statements of the men who are available. I gather the Drivers of the Up and Down Expresses are not here, but is the Guard of the Up Express?

Mr. Johnson. Yos.

Sir Alan. And the Fireman?

Mr. Johnson. Yes.

And the Fireman of the Down Express? Sir Alan.

Mr. Johnson. Yes.

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, . . 1. A. A. Sir Alan. And the Driver and Fireman of the local train?

Mr. Johnson. Yes, and the woman Guard.

Sir Alan continued :-

As you know, the Enquiry is primarily from the technical point of view, and we have get to consider if we held all of it in public, whether the statements of all or some of the mon would prejudice them from the legal point of view. So we will get as far as we can, and then I shall have to consider whether we hear the rest of the evidence in private.

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Mr. Johnson then made the following statement ;-

I regret to report that at approximately 10- 7p.m. on the 10th February, 1946, the 9-32p.m. passenger train from Hatfield to King's Cross, consisting of two quadruple inner suburban coach sets hauled by Engine 2679, became derailed whilst approaching Potters, Bar station on the Up Slow Line. The derailed vehicles fouled the Up and Down Main Lines and wore almost immediately run into by the 9-45p.m. express passenger train from King's Cross to Edinburgh, consisting of 13 vehicles, hauled by Engine 4876. At this time the 5- Op.m. express passenger train from Bradford to King's Cross, consisting of 10 vehicles, hauled by Engine 4833 was approaching on the Up Main Line and this, in turn, became involved in the collision.

The engine of the 9-32p.m. train from Hatfield ran into the buffer stops at the North end of Potters Bar Station platform and was derailed all wheels; the leading three coaches of the train were almost completely demolished, the fourth was badly damaged and the rear four coaches remained on the rails. The engine and the six leading coaches of the 9-45p.m. express passenger

train from King's Cross were derailed, whilst the engine and leading coach of the 5- Op.m. express from Bradford were also derailed, the engine coming to rest on its side.

I regret to say that as a result of the accident two passengers sustained fatal injuries, whilst eleven more passengers and six Company's servants were either injured or suffered from shock. Of the injured persons seven passengers and two Company's servants were taken to hospital for treatment, but fortunately in no case were serious injuries sustained. I am informed that four passengers and the Driver of the Bradford train are still detained in hospital, but I am pleased to say that so far as I have been able to ascertain, all the injured persons are making satisfactory progress towards recovery.

An immediate call for assistance was sent out, medical aid being available within five minutes of the accident, and local members of the Metropolitan Police were also quickly on the scene. The Potters Bar Council Ambulance, the Wellhouse Hospital Ambulance, Barnet, and the East Barnet Council Ambulance were summoned at 10-12p.m. Although no precise records are available of their times of arrival on the scene these ambulances left their depots at 10-15p.m., 10-26p.m. and 10-30p.m. respectively and were at Potters Bar station within a very few minutes. Doctors G. Lang, W. Park Porter, Bridget Noone and Mary Allin of Potters Bar, together with the Ambulances mentioned, rendered invaluable assistance; and the injured persons were conveyed to the Potters Bar Hospital and the Wellhouse Hospital, Barnet, without delay after receiving first aid treatment on the spot. Assistance was also given by a number of local residents and by passengers off the trains.

I should like to express the Company's appreciation of the excellent work done by all concerned.

As a result of the accident the Up and Down Main and Slow Lines were blocked and extensive damage was done to the Permanent Way and signalling. The King's Cross breakdown vans and steam crane were ordered at 10-30p.m., leaving King's Cross at 12-16a.m. and arriving at the scene of the mishap at 1-50a.m. The Peterborough breakdown vans and steam crane were also ordered to the scene, leaving Peterborough at 12-8a.m. and reaching Potters Bar at 2-25a.m.

The Down Main and Down Slow Lines were re-opened for traffic at 6-55p.m. on 11th February, and the Up Main and Up Slow Lines at 12-5a.m. and 2- Oa.m. rospectively on 12th February. As the result of damage to the signalling installations, all Down trains are being cautioned. Normal working is in operation on the Up Lines.

During the time the lines were blocked Main Line trains and trains to and from the Cambridge Branch via Hitchin were diverted via Hertford, connecting shuttle services being put into operation between :-

> 1. Hitchin, Stevenage and Hatfield. 2. King's Cross and New Barnet.

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between New Barnet, Hadley Wood and Pull" service was instituted between New Barnet, Hadley Wood and Potters Bar, and a 'bus service was also put into operation between New Barnet and Hatfield. I should like to express, on behalf of the Directors and the Management of the L.N.E.R., their sympathy with the relatives of the passengers who were fatally injured, and also to express their regret to those who sustained injury in this unfortunate accident.

Sir Alan Mount then raised the following points:-Sir Alan. 10- 7p.m., that was the time of the accident? Mr.Johnson.Approximately, yes.

Sir Alan. Where were the passengers who were killed?

Mr.Johnson.In the local train, the 9-32p.m. from Hatfield.

Sir Alan. Which carriage?

Mr.Johnson.We cannot be certain of that; we know it was a very lightly loaded train.

Sir Alan. How many passengers?

Fr. Johnson. Approximately 30.

Sir Alan. Of whom two were killed, and how many injured?

Mr. Johnson. Eight injured.

Sir Alan. Were the Driver and Fireman of the local train injured?

Mr. Johnson No; they suffered from shock.

Sir Alan. What about the Guard?

Mr.Johnson. The Guard of the local train was slightly injured.

Sir Alan. How many people were in the Down express?

Mr. Johnson. About 64 First and 531 Third, a total of 595.

Sir Alan. Some 595 passengers in the Down Express, of whom one was slightly injured. Driver Inmonger and Fireman Harsley, also Guard Pelling also suffered from shock. There were some 450 passengers in the Up Express, of whom two were slightly injured, and Driver Churchill and Fireman Sims were slightly injured and suffered from shock. Is that right?

Mr. Johnson Yes.

Sir Alan. Altogether out of some 1,075 passengers two were killed, 11 were slightly injured, also six Company's servants.

Sir Alan. Why was the local train so lightly loaded?

Mr. Johnson. It is a connecting train from Hatfield to London, and follows closely on a fast train, so that it only serves local stations.

The local train, the 9-32 from Hatfield, Sir Alan. consisted of two quadruple inner suburban coach sets, hauled by engine 2679. What is this type?

Mr. Musgrave. N.2. 0-6-2.

Sir Alan.

Hauled by tank engine 2679 0-6-2 type, fitted with the vacuum brake on all coupled wheels, and operating brakes on all wheels of the train. Engine weight is 71 tons, 9 cwts., in working order. The train weight was 168 tons 3 cwts. Each quadruple set is carried on 5 bogies. The total length of the local train was 375 ft. $3\frac{1}{2}$ ins. (Over the engine as well). The first three coaches of the local train were completely wrecked, and the frames of the first two were carried forward by the engine of the Down train. The frame of the third vehicle remained on the site; three compartments of the fourth vehicle were wrecked, but the frame was intact. It was on the crossover. The remaining four coaches of the rear quadruple set were untouched except for the rear end of the last coach, which was slightly damaged by contact with the leading coach of the Down express. What action, if any, did articulation have on this damage? I would suggest not any, sir.

Mr. Taylor.

- Sir Alan. Why?
- an da star An Star An Star Because the speed was such that the difference Mr. Taylor. between an articulated vehicle and a spring borne buffer loaded vehicle would not be so noticeable, and the derailment was primarily due also to splitting the points between the first and second bogies. 4
- Owing to the position in which the bogies Sir Alan. were subsequently found, it is assumed that the points were moved between "the first and second bogies of the leading coach?

Yes. Mr. Taylor.

Therefore the weight of the rear of the train Sir Alan. pushed these front two coaches further out? I would suggest that.

Mr. Taylor.

Hence the fouling of the Down Main Line? Sir Alan.

Mr. Taylor. Yes.

These frames, were they found coupled together? Sir Alan.

Mr. Taylor. NO.

Sir Alan. What happened?

Mr. Taylor. The engine carried forward the under-frame of the second coach in front of it, and dragged the under-frame of the first coach with it; the right-hand buffer of the engine caught the under-frame at the apticulated end, it dragged the frame of the first coach, and pushed the frame of the second coach ahead of it.

The right-hand side of the engine of the Down train hit the under-frame of the first vehicle at the trailing end, i.e., at the articulated end, then struck the frame of the second coach in the centre on the left-hand side of the vehicle facing north, carrying this frame on the front of the engine and buckling it in the shape of a letter "U".

- Sir Alan. The Down train was travelling at normal speed, at 40 45 m.p.h.?
- Mr. Johnson. Yes.
- The Down Express, engine V.2. type, 4876, 2-6-2 Sir Alan. type, weighing 145 tone 2 cwts. in working order, operating the vacuum brake on all wheels of the train except the centre pair of the six-wheeled van. The train weighed 383 tons 13 owts., and the first six coaches were derailed. The leading left-hand buffer of the leading coach punctured the tendor and raised it up. The front of the engine came to rest 130 yards north of the signal box, leaning over to the right. The train was There were eix coaches derailed. buck-eye coupled throughout, except for the trailing van. Screw-coupled at the tender. Did the buckeye have any effect on keeping these coaches straight?
- Mr. Taylor. Yos, definitely. The buckeye cdupling kept the coaches together and prevented telescoping. It held the whole train together.
- Sir Alan. Do you think it kept the first six coaches in line?
- Mr. Taylor. Yes.
- Sir Alan. The Up Express consisted of 10 coaches hauled by engine 4833, V.2 type, 2-6-2, with sixwheeled tender, operating the vacuum brake on the coupled wheels, and on all wheels of the train. The engine weighed 145 tons 2 cwts., in working order; the coaches weighed 307 tons 3 cwts. The train was buckeye coupled throughout, and electrically lighted throughout. Was the other electrically lighted?
- Mr. Taylor. Yes, except the rear van.
- Sir Alan. The engine over-turned to the left, adjacent to, or immediately alongside the engine of the Down train, and the first coach was derailed 'all wheels. What caused the derailment?
- Mr. Taylor. I do not know.

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51r	Alan-	Have the Company's Officers considered the cause of the engine over-turning?
<u>М</u> р.	Johnson.	The theory is that the Down engine struck the Up engine. The evidence of one witness indicates that the Up Express did come to a stand, and it is therefore our conclusion that it was the engine of the Down Express that struck the engine of the Up Express and threw it over, and afterwards went over to the right itself. The engine had the debris round it.
Sir	Alan.	Are you suggesting that the engine of the Up train was at a stand when its engine was turned over?
Mr.	Johnson.	Yes
81 x	Alan.	And you base that on the evidence of the Lineman?
	Johnson_	
sir	Alan.	Surely the Guard and Driver of the engine must
Mr.	Johnson.	We have a statement from thege
sir	Alan.	The actident happened at what time?
Mr .	Johnson.	Approximately 10- 7p.m.
		When did the first collision take place with the Down train?
Mr.	Johnson	Son the evidence, immediately afterwards, within a matter of seconds.
Şir	ATON:	So it is a few seconds after 10, 7pm. Luat the Down train came to a stand, and your suggestion is that the Up train was at that manuatraiready at a stand at 10- 7p.m.?
Mr.	Johnson.	On the evidence of the Lineman that train data 70 come to a stand.
	Alan.	Now may I ask about the tracks the spacing of the tracks, Mr. Bapton, the distance between the Slow Line, Dead End and the Up Line? gound 6 ft. The distance between the Up and Down Lines? 6 ft. The length of the dead end?
Mr.	Barton.	6 Pt
sir	Alan.	The distance between the Up and Down Lines?
Mr.	Barton.	6.6.1t. Contraction of the second statement of the sec
sir	Alan.	The length of the dead end?
sir	Alen.	What is it clear of the crossover?
Mr.	Barton.	About 60 ft.
S1r	Alan.	The engine of the local train carried forward the dead end by about its own length?
Mr.	Davies.	26 st.

Sir Alan.	What is the length of the engine?
Mr. Musgrav	0.37 ft. 11 ins.
Sir Alan.	Do you not put sand drags at this sort of dead end?
Mr. Barton.	Not at a place so near to the platform. Not just for a trap.
Sir Alan.	Is this also used as a shunting neck?
Mr. Moss.	Yes, it is used as a shunting spur.
Sir Alan.	Signal 3 permits the engine to go up to the dead end?
Mr. Moss.	Yes.
Şir Alan.	3 locks crossover No.7 normal.
Mr. Moss.	Yes.
Sir Alan.	15 locks the crossover normal?
Mr. Moss.	Yes.
Sir Alan.	And 12 requires crossover 7 and the bar 4?
Mr. Moss.	Yes, that is correct.
Sir Alan.	The bar stands normally out? And does 3 require the bar?
Mr. Moss.	Yes, 3 is released by No.4.
Sir Alan.	12 is therefore locked by No.7 normal.
Mr. Moss.	Definitely.
Sir Alan.	11 and 14 - is 14 locked by 7 pulled?
Mr. Moss.	7 locks 14 dead.
Sir Alan.	Has that been checked?
Mr. Moss.	Yes.
	Crossover points 7 locks 14 normal, and can 11 be obtained with 7 either way?
Mr. Moss.	Yes, 11 is released by 4 and 4 will lock 7 both ways.
Sir Alan.	These are long burning oil lamps, are they?
Mr. Moss.	Yes, sir.
Sir Alan.	And the distance of the Inner Homes from the box?
Mr. Moss.	340 yards from the box to the Inner Home. The Outer Homes are 542 yards from the Inner Homes.

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	Sir	Alen	Why are these Inner Homes out so far? Why are they 340 yards away from the junction? Why are they not brought in nearer?
	Mr.	Moss.	They have been there about 30 years, so far as my records show. They are outside the siding.
	Sir	Alen.	And the doll of the Main Line signal is located over the Slow Line?
	Mr.	Moss.	Yes. State the
•	Sir	Alan.	But the Outer Homes are nearer in? The doll of the Main Line is about over the Main Line?
	Mr.	Moss.	Yes. Wider spacing.
	Sir	Alan.	Is there any question of the oil in the lamps? Were they good lights?
	Mr.	Moss.	I have dever heard any complaint.
	Sir	Alan.	This local train, can you tell me was it on time?
	Mr.	Johnson.	No, about 20 minutes late.
	Sir	Alan.	Potters Bar is 13 miles from London?
	Mr.	Johnson.	12 ³
	Sir	Alan.	The box to the north of Potters Bar is Marshmoor, mileage 154 from London, 3 miles north of Potters Bar. Marshmoor works the crossover on the south side of Brookmans Park station leading from Up Slow to Up Main?
	Mr.	Johnson.	Yés.
	Sir	Alan.	It also works the Up Slow Intermediate Block Home which is operated for every train by No.4 lever in Marshmoor Box. The Up Main Intermediate Block Home signal, however, works automatically, and is only replaced to danger by lever when it is necessary to work the connection. What is the block working between Marshmoor and Potters Bar?
	Mr.	Johnson.	Track circuit and train describing bell.
	Sir	Alan.	And the operation on the other side of Potters Bar is by train describer?
	Mr.	Johnson.	By bell describing.
	Sir	Alan.	Both lines on either side being continuously track circuited?
	Mr.	Мо 88.	Except for a short length between the Up Slow and Up Main Inner Homes and the Up Main Starter.
	sir	Alan.	Is the local train booked to stop at Brookmans Park?
	Mr.	Johnson.	Yes.

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Sir Alan. Is Brookmans Park island platform served by both Up Slow and Up Main?

Mr. Johnson. Yes.

Sir Alan. It left Hatfield 20 minutes late, and stopped where?

Mr. Johnson. Including signal delays?

Sir Alan. Were there signal delays?

Mr. Johnson. Yes, it was stopped by signals at Hatfield Up Slow Advance Starter.

Sir Alan. Why?

Mr. Johnson. Waiting clear of a previous train on the Up Slow Line, which was the 7-15p.m. passenger train from Peterborough to King's Cross.

Sir Alan. So there were two trains on the Up Slow running block to block?

Mr. Johnson. Yes.

Sir Alan. Where was this first Slow train stopped?

Mr. Johnson. It stopped in Hatfield station. It would be turned to Slow line (Platform Road). The stopping train would be started from the bay. This train, being a connection, follows the Peterborough train.

Sir Alan. . The Peterborough train did not stop?

Mr. Johnson. Yes, at Hatfield,

Sir Alan. Did it stop at Potters Bar?

Mr. Johnson. No.

Sir Alan. It came through on the Up Slow Line?

Mr. Johnson. Yes.

Sir Alan. Over crossover No.7?

Mr. Johnson. Yes.

Sir Alan. At what time did it pass through Potters Bar?

Mr. Johnson. It passed through Potters Bar at 10- 3p.m.

Sir Alan. What time was the accident?

Mr. Johnson. 10-7p.m.

Sir Alan. So you had a train over this road at 10- 3p.m.?

Mr. Johnson. Yes.

Sir Alan. Then why did this local train follow this other train on the Slow Line?

k	(r.	Johnson.	With the expresses following it would have to be sent Slow Line.
·	31.r	Alan.	The local train was run on the Slow Line because of the two Up expresses; the 5- Op.m. from Bradford and the 5-30p.m. from Leeds?
<u>N</u>	4r.	Johnson.	Yes.
S	str	Alan,	Is this a normal booking then?
м	(r.	Johnson.	It definitely follows the Peterborough train.
S	Sir	Alan.	Was the Peterborough train late?
м	fr.	Johnson.	Yes.
S	ir	Alan.	That was the cause of the delay to the local train?
м	r.	Johnson.	Yes.
S	ir	Alan.	How long has this train been working?
М	r.	Johnson.	At least since October 1st.
S	ir	Alan.	Why did the Peterborough go Slow on this occasion?
M	r .	Johnson.	Because there was an Up express from Grimsby coming along on the Main Line, that is why he ran the Peterborough on the Slow Line.
S	dr.	Alan.	Then are these Up Main and Slow Lines being used indiscriminately?
м	[r .	Johnson.	As necessary.
			When was the Slow Line converted from a Goods to a Passenger Line?
М	r.	Johnson,	On 6th January.
S	ir	Alan.	What has been the delay in that?
М	r.	Moss.	In what way, six?
• :	1.	Alan.	We authorised this as being a Passenger Line a long time ago. The crossover was authorised at Marshmoor in February, 1942, but it was authorised to be turned over from Goods to Slow in July '45. I was wondering why it had taken such a long time.
M	r.	Johnson.	We had the authority in August, 1945.
S	ir	Alan.	But you did not turn it till January?
M	[r .	Moss.	It was originally programmed in the latter part of the year. It appeared in the book in the week before but was postponed.
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- Sir Alan. How is it operating now it has been sanctioned; as a Slow Line and Permissive for goods, as from January 6th?
- Mr. Johnson. Yes.
- Sir Alan. How was it notified?
- Mr. Johnson. Here is a copy of the District Superintendent's circular and the Permanent Way Notice.

. . . .

- Sir Alan. Did the Driver know this?
- Mr. Musgrave. Yes.
- Sir Alan. This alteration was notified in District Superintendent's circular 4th January, and confirmed in Permanent Way Programme No.452 commencing 12th January. You cannot have a sand drag because you want this spur for shunting purposes?
- Mr. Johnson. Yes.
- Sir Alan. Damage, Mr. Barton. How many yards of track were damaged?
- Mr. Barton. About 300 yards of track including switches and crossings.
- Sir Alan. Some 300 yards of track in all on the Up and Down and Slow Line were badly damaged including two sets of points and crossings?
- Mr. Davies. Yes.
- Mr. Barton. The Down Starting signal was carried away, and three ground disc signals were destroyed, most of the rodding, wires, cranks, etc. broken.
- Sir Alan. Tell me about the block post in the other direction. Marshmoor is 15% miles. Is it Greenwood? What is the mileage? Is it on the south side of the tunnel?
- Mr. Davies. Yes.
- Sir Alan. The north mouth of the tunnel is about $\frac{1}{2}$ mile south of Potters Bar?
- Mr. Davies. Yes.
- Sir Alan. And Greenwood signalbox is about 10 miles, namely, 23 miles south of Potters Bar?
- Mr. Green. At the south end of the three tunnels.
- Sir Alan. There are three tunnels before you come to Greenwood?
- Mr. Johnson. Yes.

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Sir	Alan.	A rising gradient of -?
	Davies.	A rising gradient of -? 1 in 200.
şir	Alan.	The peak of the gradient is at Potters Bar?
Mr.	Johnson.	Just on the south side of Potters Bar.
Sir	Alan.	Then it starts to fall?
Mr.	Johnson.	Yes.

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Fireman Robert Edgar Harsley was then called and the following statement read:-

"I am 37 years 10 months of age. I have been on the Company for 20 years and I have been a Fireman for nearly 4 years.

On Sunday, February 10th I signed on duty at 3.55pm. and accompanied Driver Inmonger on the 4.30pm. train to London and the 9.45pm. King's Cross to Grantham. I had previously had $32\frac{9}{4}$ hours rest. We had a normal journey in the Up direction and the same in the Down until we reached Potters Bar. All signals that I saw from Greenwood onwards were in the off position and I am quite sure that the Potters Bar Outer and Inner Home signals were in the off position. I did not see the Potters Bar Down Starting signal. As we got to the North end of Potters Bar Station I felt the engine hit something and I was thrown across the cab. When the engine came to a stand it was leaning over badly towards the right. As soon as possible I climbed out of the left-hand cab window and went with my driver to the signalbox to see what had happened. I should estimate our speed at 45 miles per hour when we hit the obstruction. The weather was clear and fine". . . .

Q. Sir Alan.	You were firing with Driver Inmonger?
Α.	Yes.
Q.	Were you injured.
А.	Bruises and cut thumb.
ହ.	Are you back on duty?
Α.	Yes, but not on the regular job.
Q.	Was the engine steaming all right?
Α.	Yes, sir.
Q.	Coal all right?
А.	Yes, sir.
ଢ.	What about Potters Bar Distant signal?
Α.	I got that myself, that was quite all right.
Q.	Was the engine derailed directly it hit the obstruction?
A .	I could not say, I was thrown about a lot. I suppose it would be.
Q.	Do you think the derailment started at once?
Α.	Probably, yes.
Q.	Did you see the obstruction?
А.	No. The throttle was fully open and she was slipping.
Q.	Did she start slipping straight away?
A	Yes.
Q.	It rapidly came to a stand?
٨	The a metter of three or four seconds

What speed were you doing when you hit the wreckage? Q. About 45. Α. The regulator was open? Q. Yes. Α. Had it been open coming up the bank? Q. Yes. Α, Q. Did the driver close the regulator at once? Yes, as far as I could say he did. I was firing Α. at the time, and was thrown on the floor. Q. You climbed out as soon as you could. Which side? The left-hand side. Α. Did you have any difficulty? Q. Α. Not in getting out. What did you do then? Q. We went back to the signal box. Α. Before then? Did you have a look round? Q. А. Yes, to see if we could do anything. Q. Did you look round the front of your engine? No. А. You knew you were off the road and that you had hit Q. something? We were too bewildered. Α. When did the Up express come into you? Q. I really could not say. We did not find the Up Α. express was there till we had come to have a good look round after we had come to a bit. Then we found the other engine the other side. . . . I Did you remember the other engine hitting you? Q. No, certainly not, sir. Α. Did you go back to the signal box straight away? Q. Α. Yes. Did you not walk round the front of the engine? Q. No. Α. Did your Driver do the same thing? Q. Yes. Α, Q. So neither of you went to look and see what was in the front of you? Α. Not till after we had been to the box.

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	Q.	You do not remember the Up express hitting you? For all you knew the Up express might have been there
l	A	Yes, it probably was. I cannot remember.
;	Q.	The weather was clear?
- .	А.	Yes.
	Q.	Did you see the driver of the other engine?
· · · ·	A	Not till afterwards.
	Q.	Did you go to the box?
,	A. '	We both went to the box.
	ନ୍.	What did you do there?
	Α.	We asked the signalman what was the matter. He said "It isn't you, you are all right."
	Q.	Then you went back to the engine?
x	A.,	Then we had a look round and found the other engine on its side.
	Q.	Did you speak to the other Driver?
1. 12 a ju	A.	No, he was not there.
	Q	How did you get home?
	A.	We went back with the rear portion of our train into King's Cross and Down on the two o'clock.
. '	ିନ 🤌 🚦	You are quite sure you passed the signals clear?
	A. 2	I am sure of that.
	Q. Mr.Cleaver.	Did you observe the Inner Home - your Inner Home signal?
	A	Yes, that is my side.
	Q. Mr.Cleaver.	What distance were you south of the Outer Home Bignal when you saw the Outer and Inner Homes?
	Á.	About 100 yards. Then I picked up the shovel and commanced firing.
	Q. Mr.Cleaver.	You were still firing when the accident occurred?
	A.	Yes.
	Q. Sir Alan.	Why were you firing at the top of the bank?
	Α.	If you get a little bit on there, then you can get a run through Hatfield if you have got a good engine.
	Q.	Do you always do that?
	Α.	Well, nearly always, sir.
		-15-

Goods Guard John William Chappell of Doncaster was then called and the following statement read:-

"I am 60 years of age. I have been on the Company 39 years and have been a Goods Guard for 28 years.

I signed on duty on Sunday, February 10th et 5.50pm. to work the 6.5pm. Express Passenger train (5.0pm. ex Bradford) from Doncaster to King's Cross. We had a good run up and passed through Hatfield without a check. We proceeded normally past Marshmoor but as we were approaching Potters Bar there was a very sharp application of the brake. Immediately the brake application was made I went to the window to look out on the left side. I got the window open and was looking out and the train then came to an abrupt stop. I had a King's Cross driver and fireman with me, who were travelling home passenger, and it was decided that they would go forward and see what had happened and I went back to protect my train. "

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Q. Are you still a Goods Guard? Sir Alan. A. Yes, sir. فأستعر والتركي ومنتجر فالمتعاد فالمراج Q. What were you doing on the passenger train? We work them at Doncaster - all the specials and . Α. all the reliefs. · · · · · f . s . Q. What were you doing when the brake was applied? Α. I believe I was sitting on the Guard's seat when it was applied. What speed were you running when the train Q. suddenly stopped? Α. I have no idea. I cannot tell you. Did you think you had hit something? Q.. I felt that we had hit something, А. The train was travelling. The train was not at Q., a stand when the collision occurred? You are -48 Gar quite certain about that? · · · · · 17 2.1 Α. He stopped at once when I was looking out of the window. Q. Did it throw you down? Sta Str It hit me hard against the side of the window. Α. 11 N. You are quite certain that the train was not Q. (. at a stand? • T 👌 🖉 Yes. Α. ÷ . ;;# Q. Had you seen a signal? I had seen no signals whatever. Ά. -16-

	Q.	What time was it?
· · · · ·	A.	Approximately 10.12pm. when I looked at my watch.
•	Q-	When did you look at your watch?
	A.	Just after it happened.
	ି କୃ	When was your watch last checked?
	Α.	The morning before.
	Q.	Good watch?
• •	А.	Very good watch.
4.000	Q.	You are sure about the time?
	A.	Yes, I am sure it was 10.12.
	Q.	Cannot you give me an idea of the speed of the train?
	A.	I cannot.
	Q.	Was it walking speed? What speed were you coming at through Hatfield?
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	A	We were travelling at a nice speed, the same as we usually do. We had had no check.
	ົວ	Would you say the speed was about 50 m.p.h.?
	A. ^d sof	I wouldn't say not to be sure. We were travelling at the usual speed. We were just passing in the time that we should have done.
	ହ.	Were you on time?
	A	We were 20 minutes late all the way.
	Q.	Were you making up time?
	A	Nons whatever.
	Q.	You were travelling on schedule?
	A	Yes.
	Q.	What is the schedule speed?
5		To pass Hatfield and stop at Finsbury Park the booking is 19 minutes, namely 48 m.p.h.
	<u>,</u>	How long had the brake been on when you came to a stand? Was it just momentary or hed it been on some time?
	A, the	I cannot tell you. It was all done in quick time.
· · · · · · · · ·	Q.	It was apparent that a collision had occurred while the train was moving?
•	А.	Yes.
·	Q.	You cannot say what the speed was?
	Ai	No.

What did you do?

I had a King's Gross Driver and Fireman travelling with relard it threw them on to the floor and they got up again and we immediately agreed that something was wrong. They went forward and I went back to protect the train and the Slow road.

- P 1

- Q. That was another reason for you saying that it was a collision?
- A. We knew it wasn't an ordinary stop with the bump we got.
- Q. Had you nearly come to a stand before you felt the bump?
- A. It was a sharp bump and we never shifted forward or backward.

Q. How long had the brakes been hard on?

- A. I cannot tell you.
- Q. A second or two?

I cannot tell you. I got up from the seat after the brake was applied. I knew it was something unusual the brake going on like that. I got the window down and looked out. The brakes were scretching and scraping as well. I could hear them. I have no idea how long it took.

Q. Immediately you ran to the window this bump came?

A. .

Â.

Q.

À.

It seemed to be straight away.

Fireman George Simi^s was then called and his statement as follows read:-

"I am a fireman in the employ of the L.N.E. Railway stationed at New England, Peterborough, and reside at No. 232 Walpole Street, Peterborough.

On Sunday, 10th February, 1946, I booked on duty at New England at 7.49pm. and in company with Driver Churchill walked to Peterborough North Station and relieved the Driver and Fireman on engine 4833 attached to 336 Up Special, Bradford to King's Cross.

We left Peterborough 8.50pm., stopped at Hitchin, continued to Fotters Bar, where I noticed that all boards were off. At a point between the Outer Distant and Inner Distant signal I was looking out on the right-hand side of the engine when I noticed someone waving a red lamp and at the same time saw the Inner Distant signal go to danger.

Almost immediately I saw what appeared to be a coach across the Up line.

I saw my Driver apply the brake and the train almost came to a stand. I tried to apply the hand brake, but was too late, the engine was struck by an engine on the Down road which turned our engine on its side."

Q. Sir Alen. How is Driver Churchill? Α. He is looking better now than he did when I saw him on Monday. Q, What is your age? Α. 18 years. ର୍. How long have you been in the Company's service? Α. Two years in the Locomotive Department and two years in the Traffic. Q. You started at the age of 14? Yes, in 1942. Α. Q. Did you see the Distant, the Outer Home and the Inner Home? Α. Yes. Q. Just tell me about these signals? The Outer Distant is not a colour light. Α. Q. Do you remember passing Brookmans Park? Α. No, I was firing. Tell me what you saw approaching Potters Bar? ର୍. à. Potters Bar is the point where we usually stop firing for a period and I look out from my side of the engine. The Outer signal was Oreen and the Inner Distant was Green and then they wont down to "Danger". Q. Did you see these signals go to "Danger".? Yes. A. Q. Which did you see go to "Danger"? Α. The Inner Distant. Q. Are you talking about a colour light signal? Α. Not at Potters Bar. Just an ordinary signal. Ç. You mean an ordinary oil light signal? A. Yes. You had not seen any colour lights before that? Q. No, I must have been firing at the time. Α. What was this Distant signal showing? ହ. It was Green. Α. Q. Was there another one on the post? Α. Yes, there was one for the Slow road.

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(Q.,	What was that showing?
4	Α.	Danger.
¢	ଚ.	What was its light?
ł	А.	Red.
G	ନ୍ .	After that, what is the next signal?
1	A.	The Inner Distant, which is the Home signal.
Ç	Q.	What was that showing?
1	Α.	It was showing Green for us.
(Q.	After that what happened?
	A.	I saw the red light that the Guard was showing, swinging from side to side. I shouted across to my Driver to stop but he had seen it when I did. We did our best and we braked hard and then we got turned over on our side.
¢.	Q.	Directly you saw the red light the Driver applied the brake. What speed were you travelling when you saw the red light?
4	A.	I could not judge that. Iwaldsay the ordinary speed of a passenger train.
(2.	Did you hit something immediately after the brake was applied?
Ĩ	A.	I did my best to assist and I looked out of the side again and went for the hand brake and the other engine hit us.
¢	၃.	You were moving when the other engine hit you?
4	Α.	We were moving very slowly.
Ģ	Q.	You were moving?
Å	A .	Very slowly.
ç	2.	Do you think the other engine was moving too?
. 4	A.,	I cannot tell you.
Ģ	2 . .	You were moving slowly when you hit this obstruction and you came to a stand at once and you turned over. Was it a rapid turn over or a slow one?
A	Α.	I do not know. It all happened so suddenly.
Ç	2.	When you talk about the Outer Distant and the Inner Distant, are you quite sure that you don't mean the ordinary Semaphore Distant and the Outer Home signals?
£	A.,	I mean the Outer Home.
Ģ	z.	Before you saw the Outer Home, what did you see?
F		I saw the Up Main line Distant signal.
Ç	S•	You did not see anything before this?
ł	4.	No. The first signal I saw was the Distant and the Beoogd, one, the Outer Home.

G.	The signal you saw was Green?
A.	Yes.
Q.	Did you pass it at Green?
Α.	Yes.
Q.	You are sure you did pass it at Green?
A.	Yes.
Q.	You did not see it go to Red?
A .	No. We only saw the Inner Home go Red.
Q. • • •	How far away were you from it when you saw it go to Red? A train length?
Α.	No, I do not think it was quite a train length away.
Q.	Did you see it yourself go to Red?
Α.	Yes.
	There was another signal on the same post that was already at Red?
A. 5.1	Yes.
Q.	One on the left was Red and the other on the right was Green, and you saw the one on the right go to Red, and you think you were perhaps a train length away?
Α.	Less than a train length.
A. Q.	Less than a train length. It was then that your Driver applied the brake?
Q.	It was then that your Driver applied the brake?
Q. A.	It was then that your Driver applied the brake? Yes.
Q. A.	It was then that your Driver applied the brake? Yes. You are quite sure that you saw that red light yourself?
Q. A. Q.	It was then that your Driver applied the brake? Yes. You are quite sure that you saw that red light yourself? Yes. You saw that red light before or after you saw this
Q. A. Q. A. Q.	It was then that your Driver applied the brake? Yes. You are quite sure that you saw that red light yourself? Yes. You saw that red light before or after you saw this signal go to Red? I saw the red light first and then the signal went to "Danger" immediately.
Q. A. Q. A. Q.	It was then that your Driver applied the brake? Yes. You are quite sure that you saw that red light yourself? Yes. You saw that red light before or after you saw this signal go to Red? I saw the red light first and then the signal went to "Danger" immediately. Do you recollect when the Driver applied the brake whether he made a gradual application or a full
Q. A. Q. A. Mr. Musgreve. A. Q.	It was then that your Driver applied the brake? Yes. You are quite sure that you saw that red light yourself? Yes. You saw that red light before or after you saw this signal go to Red? I saw the red light first and then the signal went to "Danger" immediately. Do you recollect when the Driver applied the brake whether he made a gradual application or a full application.
Q. A. Q. A. Mr. Musgreve. A. Q.	It was then that your Driver applied the brake? Yes. You are quite sure that you saw that red light yourself? Yes. You saw that red light before or after you saw this signal go to Red? I saw the red light first and then the signal went to "Danger" immediately. Do you recollect when the Driver applied the brake whether he made a gradual application or a full application. A full application. The Driver began to reverse. Do you think he did so
Q. A. Q. A. A. Mr. Musgrave. A. Mr. Musgrave.	It was then that your Driver applied the brake? Yes. You are quite sure that you saw that red light yourself? Yes. You saw that red light before or after you saw this signal go to Red? I saw the red light first and then the signal went to "Danger" immediately. Do you recollect when the Driver applied the brake whether he made a gradual application or a full application. A full application. The Driver began to reverse. Do you think he did so before the collision? He did not manage to do it. The collision was too

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Did the Driver see the red light at the same time as Q. he saw the signal go Red **7**.

Yes, both together. Α,

Did you think he saw the signal go to Red? Q.

Yes. Naved to the second data arry orthogon n. 1.12

Lineman Edward Cornell was called and the following statement read:-· · ad Brys (Pr. 1986)

"I have been in the Company's service 29 years, and have been a Lineman for 14 years, at Hitchin, Hatfield and Barnet. On the night of February 10th I was walking along a footpath in the direction of Brookmans Park shortly after 10.0pm. on the Down side of the line. The weather was clear and fine. I was approximately 150 yards north of the Potters Bar signalbox when I noticed a passenger train approaching the station in the Up direction. I did not know at the time whether the train was on the Up Main or the Up Slew Line. I knew from my general experience in the district that it was a local train, and it appeared to me to be running at a normal speed to stop in the station. I next heard a crash and immediately came to the conclusion that the engine of the train had hit the buffer stops. I looked round, and noticed that the rear of the train had come to a a stand about opposite the cattle dock. I could see the tail lamp on the train.

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I then looked at the Up Main and Up Slow to Main Inner Home signals, and noticed that both back lights were showing normal, which indicated to me that both signals were at danger. I then noticed a passenger train approaching in the Up direction and when I looked it had passed the Outer Home signal and the brakes were being fiercely applied. The train came to a stand with the engine just short of a point opposite the rear of the local passenger train. I also noticed that the doors of several compartments opened very quickly after the train had come to a stand, and some passengers jumped out and ran across the Down Main Line on to the bank near where I was standing. Within a matter of seconds I heard a grinding sort of noise in the direction of the station, and the next thing I saw was a black object near the engine of the Up Express. It appeared to me that there was a collision, and I then saw the engine of the Up train fall on its side. Later, at about 10.30pm. I went to the signalbox and noticed that No. 7 lever was reversed. All other levers were normal. I noticed that certain signal repeaters were in the "Off" position, although the levers were normal, and attributed this to the obstruction caused by the debris. I also noticed that the track indicator diagram showed track circuits "W - V" on the Down Road and "UM - UN - UO" of the Up Line occupied. " S 50 1 1 1 1 1

· · · . Strate in the second At what speed was the local train running? You say Q. Sir Alan. it was a normal speed.

- A. . Roughly about 15 m.p.h. Q. You know this line very well? Yes. Manager and the second A.

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- ହ. Do you think that trains running on the wrow to stop at the station pass through about 15 m.p.h? Yes. Α. This was the first time you looked round? Q. Yes. Α. • • • • You could see the tail lamp of the train? Q. Α. Yes. How did you notice the passenger train in the Up Q. direction. How, far away was it? I cannot say whether there were any head lights on it A. . . . or not, but as soon, as I saw the two back lights on the signals I looker, automatically to see something come up. How long after the crash was it that you saw the Q. express passenger train approach? As soon as I heard the crash. Α. How did you realise it was'a passenger train approaching? Q. I thought it was as soon as it hit the buffers. Α. What made you think it was an Up traih? Q. It came to me all of a sudden that there might be an Α. Up train because I have seen a derailment once or twice with these buffer stops. You say that directly this collision had taken place Q. with the buffer stops you looked at the Up Home signal and you satisfied yourself that it was at "Danger"? Α. Yes. How long after that did the Up train arrive? Q. At the same time as I looked I could see the express Α. coming up. 1 You saw its head lights? Q. Α. No. I saw the reflection of the coaches. Q. Did you continue to watch the Up train? I was watching it all the way along, and I did not A. think he was going to stop, but he did about 6 yards from the rear of the local train. I was looking at the engine of the Up express and at the same time the doors openal and a lot of passengers came running out. At the same time I heard a grinding noise coming from the south and it automatically came to me that it was another train coming along. All of a sudden I saw a black object hitting the engine. Is it your impression that the Up express was stationary Q. before the Lown express hit it? Α. Yes.
 - Q. You were some distance away from it?
 - A. Yes, but I was looking at the engine most of the time.

Q.	Why were you impressed by the people getting out of the express?
Α.	There was so much excitement that some of them might have got out before the train came to a stand. I am not certain whether these people got out before it exactly stopped dead or was slightly in motion.
ହ.	I do not think you could have seen the Down express at the time. Your attention was riveted on the Up train.
Α.	I did not see the express coming but I saw a dark object as it hit the Up express.
Q.	You did not see the Down express hit the wreckage?
Α.	No. I could hear the grinding noise.
ନ୍.	What did you do? I'dyou go to the box?
A.	I had my wife with me at the time and she was in a very bad state. I rushed her home and went over to the Shop and then went to the signalbox.
Q.	What did you find in the Box?
A.	The crossover 7 pulled.
Q	Everything was in order except No. 7 lever?
Α.	All the signals were normal.
Q	Nos. 10, 11, 14 and 55 were showing "off"?
A.	The indicators were showing "off".
Q.	Wrongly "off".
A.	Yes.
Q.	That was due to wreckage on the wires?
A. 1	Yes.
Q.	Are you satisfied about that?
Α.	Yes.
ହ.	You are satisfied that all the equipment was in order?
Α.	Yes.'
Q.	Have you tested the locking afterwards?
A.	No.
Q.	You would not be definite about the Up train being at a stand before the collision took place?
A.	I think it was definitely stopped.
ନ୍.	That was your impression?
A.	Yes.
ର.	You had not been looking at the Down train?
Α.	No, I was looking at the Up Express.
^	What we the sneed of the UD train as it passed, when it

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I cannot say. It was only about a coach length and Α. 2.47 was moving very slowly. He was not going very fast 1.122 then. I thought he was going to pass the rear end of the local train. Q. Did you see the Up Express engine double over? 11 1 3 Yes, I saw that. That was the dark object. Α. . : - C Q.. You saw the engine turn over? Yes. A . You say that you have been a Lineman for 14 years at Q. Hitchin, Hatfield and Barnet. Does that include Mr.Cleaver. • 1 Potters Bar? No. I had been at Hitchin, Hatfield and Barnet À. beforo I went to Potters Bar. You would be responsible for attending to any Mr. Cleaver. defective signal at Potters Bar for how long? Α. 14 years. . *** . . . Q. Can you remember at any time a signalman reporting Cleaver the Outer Home for the Inner Home signals at Potters Mr. Bar working incorrectly? • ; , • ٤., Α. No. Mr.Cleaver. both the Main Line Outer Home and Inner Home, and Do you remember a case where it has been reported that Designation of the slow line, have been "off" at the same time? A. No, never. Mr. Cleaver. Would that be possible? Would the locking permit that? No. Α. Would it not be possible that after a train passed Mr.Cleaver. through the junction that the Signalman could get his points back to the stop block with the Inner Home signal on the Slow line falling partially back to the "on" position and standing, shall I suggest, in the same "off" position and thus mislead the Driver in seeing a Green signal? It could not according to the locking. ٨. No. The two Outer Homes could be "off"? Mr.Cleaver. A. Yes. Mr.Moss. . <u>1</u>. -

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·	and Telegraph Inspector Mills was called and questioned.
Q. Sir Alan.	It has been suggested that there was a defective signal on the Slow line 18 months to 2 years ago. Do you know of any case?
A. , : · · · ·	Yes, we had one about that time It was a graphite bearing experiment we were trying out and we had it put on the Home Signal on the Slow road. We were trying it out to do away with oiling. We were trying to overcome the freezing of the arms, but it did stick in the "clear" position.
	When was this?
A.	I think it was during the autumn. I am not quite certain. About 2 years ago.
`Q•	What are these signals?
A	All Upper quadrant. The de the base of the second second
Q.	When was this experiment?
A.	About 2 years ago. If it was a case of freezing, how did it stick?
Q.	If it was a case of freezing, how did it stick?
Α,	It was due to the fact that the graphite had congealed in the casing.
• Q •50	Did you leave it there?
A.	No, I took it straight away. We had another one at Finsbury Park, but we took that out.
	Have you got any more?
A. A. St.	No; we do not want them. That have been and have been and
ୟ.	Have you had any trouble since that one?
A.	No.
	No. What is the fitting there now? The standard apper quadrant fitting? Yes. Is it self-oiling?
A.	No, it has to be oiled.
Q.	Is it worked by wire or rod?
А.	Pulled by wire.
Q .•	Goes back by gravity?
A.	Yes.
Q. Mr.Goss.	How long ago is it since you had a report of any defect in the signalling at Potters Bar?
Α.	I cannot recember any defect much on those. Maybe a slight adjustment on a cold frosty morning.

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Q. There was no work being done on those signals a few days prior to this accident?

A. No.

Mr.Moss. We had authority to put in two additional track circuits to cut out the gap which is at the present time at Potters Bar and we were trying out that.

Q. Was there any track work on then? Sir Alan,

A.

No.

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Signalman George Thomas Baines was then called and the following statement read:-

"I am 65 years of age. I have been in the Service of the Company for 36 years and I have been a Signalman for 27 years. I have been a Signalman at Potters Bar for 4 years.

I signed on duty on Sunday, February 10th, at 6.0pm, having had 12 hours rest since my previous turn of duty. I am in good health and have had no recent illness. The general working was quite normal prior to the mishap. Prior to the mishap the previous train over the Up Slow Line was No.90 Up, 7.15pm Passenger train Peterborough to King's Cross, which passed my box at 10.3pm. No.95 Up Passenger train, 9.32pm Hatfield to King's Cross was described to me at 10.4pm on the Up Slow Line and when I got an indication on (UD. UE. UF) and UG track I lowered No.11 Up Slow Outer Home signal for the train to approach the Inner Home signal. I anticipated that the train would stop at the Inner Home signal which was at danger, but the train ran past this signal. When I saw that the train had passed the Up Slow line Inner Home signal at danger I immediately sent the obstruction danger bell signal to Marshmoor and to Greenwood signal boxes. I then immediately placed the Up Main Line signals to danger, these having been pulled off at 10.7pm for the 5.0pm Express Passenger train Bradford to King's Cross. I then placed the Down Main Line signals to danger, these having been pulled off at 10.5pm for the 9.45pm Express Passenger train King's Cross to Edinburgh. My next thought was that as the 9.32pm from Hatfield had run past the Inner Home signals, the engine would collide with the buffer stops and it was with this in mind that I decided to try to reverse No.7 points with the object of diverting the train on to the Up Main and into the station. When I attempted to do this I was not clear as to the actual position of the Hatfield train, but I thought I had a reasonable chance of making the lever movement and effecting the diversion. I should estimate that the Up Slow train was running towards the buffer stops at approximately the normal speed of a train running into the station to stop. I pulled No.7 lever right over, there was nothing really abnormal in the pull of the points. The next thing that I saw was that the ongine had run into the buffer stops. It was then 10.8pm, I did not know at that moment what had happened to the train itself. I looked for the Down Express which I knew would be approaching and saw that it was just on the London side of the Inner Homo signal, so far as I could judge. I should estimate the speed of the . Down Express Passenger train at about 40 miles per hour when it, came through the station. I did not actually see the engine of the Down Express hit the coaches of the Slow Passinger train, but I heard a crunching noise. I then mado an immediato' report to Control on the telephone. Т did not see or hear anything of the Up Express Passonger train."

Q. You say the train passed your box at 10.3pm and this other Sir Alantrain was described to you at 10.4pm. Where do you get these times from?

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A. From Marshmoor.

Do you not book in your signal box?

A. Yes.

·Q.

Q. Where do you get these times from?

A. From a register.

- Q. Did you leave it to the Signal Lad?
- A. We have no Signal Boys on on Sundays.
- Q. What is 10-1?
- A. No.90 passed Marshmoor at 9.57, I passed it on to Greenwood, the forward signal box, at 10.1, and the train passed Potters Bar at 10.3. He came up the Slow road.

Q. Is that timed in the register?

- A. Yes.
- Q. How fast was the local train going?

- A. It is rather difficult to estimate the speed but the suburban train was pulled up very quickly.
- Q. Between 25 and 30 m.p.h.?
- A. I do not think I should be under-estimating if I said 20.
- Q. You put the accident at 10.8?

A. Yes.

Q. I have been told 10.7.

Sec. Sugar

- A. The Obstruction Danger signal was sent at 10.7.
- Q. Therefore the accident could not have happened at 10.8.
- A. Yes. The Obstruction Danger signal was sent to Marshmoor and Greenwood before the train came to the buffer stops.
- Q. Your signals were working properly?
- A. Yes.

Sir Alan I will ask you a few questions later.

Driver Stanley Trigg was called and his statement as follows was read;-

. . . .

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"I have been in the Company's service 292 years, and have been a Driver for 87 years, during which time I have been stationed at the King's Cross Depot. I am working in what is known as the Metropolitan Link, having been on that work for approximately one month. This involves working between Hertford and King's Cross, and Welwyn Garden City and King's Cross, together with local passenger shunting and empty coach working turns. Prior to this I was for nine months in the Alexandra Palace Link (Push and Pull) which involved working between Alexandra Palace and Finsbury Park as a normal weekly roster, with occasional Sunday turns working to Hertford and Welwyn Garden City. I have also worked as a Fireman on seven Royal trains. I signed on at 4.29pm on Sunday, 10th February, to relieve the Driver of No.37 diagram at King's Cross and subsequently to work the 7.35pm King's Cross to Welwyn Garden City, the 8.50 empty coaches Welwyn Garden City to Hatfield, and the 9.32pm passenger train Hatfield to King's Cross. I had previously had 267 hours rest. I am in good health and have had no recent illness. The weather during my turn of duty was fine and clear. The journey from King's Cross to Welwyn Garden City was normal. In the Up direction the

journey was also normal to Hatfield. The working of the engine was normal, and we were travelling bunker first in the Up direction with a left-hand drive.

We left Hatfield at 9.52pn. After leaving Hatfield on the Slow line we were stopped at the Hatfield Advance Starting signal for approximately two minutes. The Red Hall signals were in the "Off" position, but the Marshnoor Up Slow Distant signal was at caution. I checked the train approaching the Marshmoor Home signal, and came almost to a stand when I noticed both the Starting and Home signals come off. The distant repeater for the Marshmoor Intermediate Block Home was showing a green light. We made the booked stop in normal time at Brookmans Park Station. We made a normal start from Brookmans Park, and on approaching the Marshmoor Internediate Block Home signal I noticed it was showing a green light. There were no other lights showing except the signal applicable to the line on which I was travelling. Proceeding further, I noticed that the Potters Bar Up Main Line and Up Slow Line Distant signals were both at caution. The Potters Bar Up Slow Line Outer Home signal was in the "Off" position, and I also noticed that the Up Main Outer I should estimate Home signal was in the "On" position. that I was travelling at between 35 and 40 n.p.h. when I passed the Distant signal, and I shut off steam prior to passing the Outer Home signal. I saw the Inner Home signals, one of which was red and the other green. Т was almost certain that the signal in the "Off" position was the one applicable to the Up Slow Line. I had a good view of the signals as I approached them. As I passed the Inner Home signals I applied the brake ready to take the lead from the Slow Line to the Main Line, and to stop in the Potters Bar Up Platforn. The next thing I knew was that the ongine had hit the buffer stops, and I should estimate that at the time we were travelling at about 15 n.p.h. I was still applying the brakes at the time when the engine hit the stops. My mate and I were thrown across the cab, and as soon as we had recovered we looked out and saw the headlights of a Down passenger train coming through the station. Almost at the same moment we noticed that what appeared to be the first and second ceaches of our train were across the Up Main Line and fouling the Down Main Line. I was not sure whether the engine of the Down Passenger . train had the steam on or not, but I should estimate the speed of the train at approximately 25 to 30 m.p.h. The engine of the Down Passenger train then collided with the coaches of our train, and the Down train shortly afterwards came to a stand. I then got off the footplate and walked round the rear of my train when I discovered that an Up train was also involved in the collision, and this was the first I knew about an Up train being involved. I could not say how many coaches of my train were left standing on the running lines."

Q. You have been on Royal trains? Sir Alan

- A. When I was firing.
- Q. How many Royal train trips have you taken?
- A. About nine. When I was firing at Cambridge.
- Q. Quito fit on this journey?
- А. Үез.

Q. No colds?

A. No.

Q. You were on the right-hand side?

A. Yes.

Q. Were you on time?

A. We left Hatfield about 9.52pm, about 20 minutes late.

Q. 9.32pm is the right time?

A. Yes.

Q. Wasn't there another light on the Main?

A. No light at all.

Q. Why were there no other lights showing on the Main Line?

A. They are approach lighting signals and the Main Line Mr.Moss signal is of the searchlight variety and with the spacing between the Fast line and the Slow, it is quite possible that he may be out of the direct beam.

Q. He was getting two colour light signals, one either side of Brookmans Park?

A. The approach lighting is parallel lighting with lights Mr.Moss on the Main Line and vice versa.

Q. There were no other lights showing?

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A. It is quite possible that being a searchlight signal, Mr.Moss which is not for the line on which he was travelling, he may not notice that it was alight.

Q. Can you say what sort of length of view you had?

A. I cannot.

Q. What sort of distance? Three or four train lengths?

A. I suppose it would be.

Q. About how long after the time you hit the buffer stops did you go back?

A. We were 2 or 3 minutes pulling ourselves together and than we went down straight away.

Fireman Leonard James Dungate was called and the following statement read:-

"I have been employed by the Company for 10 years, and in the Locomotive Department for 62 years. The whole of my time in the Locomotive Department has been at King's Cross Depot. I am in good health, and have suffered no recent illness. I signed on at 4.29pm on Sunday, 10th February, and afterwards worked with Driver Trigg at King's Cross Station and subsequently on the 7.35pm passenger train King's Cross to Welwyn Garden City.

I had had 272 hours rest before signing on. we had a normal journey down to Welwyn Garden City and back to Hatfield with the empty coaches. I could not say d_{ij} exactly what time we left Hatfield in the Up direction with the 9.32pm train to King's Gross, but we were late. Hatfield Advance Starting signal on the Slow Line was at danger, and we were delayed there two or three minutes. I did not notice any further signals until I noticed my Driver applied the brake, and we were then approaching Marshmoor where the Home signal was at danger. We hardly stopped, as the signal came off, and we proceeded on the journey. The colour light signal on the approach side of Brookmans Park Station showed a groen light. We made a normal stop at Brookmans Park Station. After we left I noticed that the Marshmoor Up Slow Intermediate Block Home signal was showing a green light, and I then started my firing duties, but I noticed that the Potters. Bar Up Slow Line Distant signal was in the "On" position. I left off firing the engine after we had passed the -----Distant signal, and I noticed that the Up Slow Line Outer Home signal was in the "Off" position. The Driver had shut off steam before we passed the Outer Home signal. I was then engaged in breaking a lump of ccal, but I looked up as we were approaching the Inner Homo signal and saw that the signal for the Up Slow Line was in the "Off" position. The Driver had applied the brake before we got to the Inner Home signal. The next thing I knew was that we had collided violently with some obstruction. I was knocked off my balance, and as soon as I recovered I looked out on the off side of the engine. I could see that two or three of the coaches of our train were across the Up Main Line and fouling the Down Main Line. Almost immediately I saw a Down passenger train coming through the station, and I shouted to the Signalman. The engine of this train cut through the coaches of our train which were foul of the Down Main Line. I should estimate the speed of the Down passenger train at 40 to 45 m.p.h. I then left my engine with Driver Trigg, walked round our train and found an engine lying on its side. I thought this was the engine of the Down passenger train which had been turned over by the collision, and only afterwards discovered that an Up train was involved in the accident."

Q. Whitch side was the platform at Brookmans Park? (Sir Alan)

- A. The Driver's side going bunker first.
- Q. Did you see the signal go to "off"?
- A. No, it was already "Off" when I looked.
- Q. You were on the left-hand side of the footplate travelling in that direction?

A. Yes, facing London.

Sir Alan Will you please stay as I have some more questions to ask you later.

Passenger Guard Florence May Haden was then called and her statement, as under, was read:-

"I have been employed by the Company for nearly three years, and have been a Passenger Guard for approximately two years and three months. I signed

on duty on Sunday, February 10th, at 4.10pm, worked the 4.24pm passenger train King's Cross to Hertford and 5.35pm Hertford to King's Cross, and the 7.35pm King's Cross to Welwyn Garden City. I came back on the 8.50pm cars Welwyn Garden City to Hatfield, and 9.32pm from Hatfield to King's Cross. I had had 21 hours rest before taking duty on the Sunday. I am in good health and have had no recent illness. We were working quite normally. It was 9.55pm by my watch when we left Hatfield with the 9.32pm train, but my watch is not too reliable. We were delayed by signals leaving Hatfield and we were preceded over the Up Slow Line by the Peterborough train. We were stopped at Hatfield Up Slow Advance signal. I did not see Marshmoor Distant signal, but the Home signal was at Danger and it was only lowered just before we got to it. We proceeded to Brookmans Park Station and made a normal stop. After leaving Brookmans Park Station I was engaged in making out my journal, and I did not see any more signals. As we approached Potters Bar the Driver applied the brake and I picked up my lamp and walked to the door, and just as I got to the door I felt a jolt which threw me off my balance. I got back to the door and looked out on the left-hand side of the train. As I knew we were not in the station I walked over to the off side and looked out of the window, and the line appeared to be obstructed near the signal box. I got out of the brake and could hear an Up train approaching, although I could not then see it. I ran towards the approaching up train shouting as I did so, and shewed a red light with my hand lamp. I noticed that the brakes were being applied on the Up train, and I should say it was a full application of the brake when the train actually passed me on the Up Main Line. I was very upset, and cannot remember clearly what happened afterwards."

Q. What was the time you left Brookmans Park? Sir Alan

- A. 10.6 leaving Brookmans Park.
- Q. Was it a normal application of the brake?
- A. Yes.
- Q. Did you expect him to be prepared to go through the crossover?
- A. I was prepared for him to run into the platform.
- Q. You were in the rear of the train?
- A. Yes.
- Q. How long after was it that this Up train approached. after the accident occurred? About 2 seconds?
- A. Yes, I should think it would be. It was as soon as I looked out of the window.
- Q. How far do you think you were able to go up the line?
- A. I am sorry I have got no idea.
- Q. I suppose you ran?
- A. I ran as fast as I could.

- Q. Have you got any idea what the speed was when you ran into the buffer stops?
- A. I am sorry I cannot estimate that.
- Sir Lan You have the satisfaction of knowing that your red light was seen by the Driver of the Up train.
 - A I did not know that.
 - Q. When you felt the brakes being applied you picked your lamp up to go to the door. Did you think that you were just about to enter Potters Bar station?
 - A. Yes. As we run into the station I go to the door.
 - Q. The first think you knew that something different was occurring was when you felt the bump?
 - A. Yes, and I got down from the van at once.
 - Q. Did the train pass you? How much of the train passed you? Can you remember that? How many coaches?
 - A. I really could not say. I just got out of the way.

Passenger Guard Wilfred John Pelling was called and questioned :-

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Q. You were the Guard of the Down Express - 9.45pm from King's Gross.

- A. Yes.
- Q. How old are you?
- A. My age was 62 last February.
- Q. How many years service?
- A. 47 years.
- Q. You left King's Cross and were approaching Potters Bar. What speed were you travelling approaching Potters Bar?
- A. About 45 m.p.h. or just over that.

Sir Alan I want you to tell me just what happened.

- A. Just as we got out of the tunnel I went out to shut my vestibule door and just came back when I went right on my back when we struck the obstruction. I picked myself up and I went on my back again. I picked myself up and went on my back again - three times. I looked at his brake and he still had 20, and I looked at the steam heater and he still had 20 on. It appears that owing to the Driver hitting the obstruction he couldn't get at his brake and, of course, it gave my train a good jerking and that was how the casualties in my train were hardly anything at all.
- Q. Did you go up to the front first?
- A. I got down and went out to the signal box first and then up the front.

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Q. Did you have a word with the Driver?

- A. No. The first person I met was a lady coming down from the steps. I said "What has happened", and she said "You have run into a train that has been derailed".
- Q. What is the normal speed.
- A. The normal speed is about 45 mph. We only had 13 on.
- Q. You are sure that you were knocked down on your back three times?
- A. Yes, by the rebound of the train. It was not a sudden stop.
- Q. How had he still got 20?
- A. He did not apply his brake immediately as he was unable to do so.
- Q. Did the Driver tell you this?
- A. Yes. He said that when he was thrown out of his position he could not get over to his brake.
- Q. There were no pipes came apart nor the steam pipes came apart?
- A. There was a division between the first coach and the tender. That was when he came to a standstill.
- Q. You think the Up train coming in induced the tender to go up and the first coach to go up?
- A. I could not say anything about the Up train.

Q. Did you notice your gauge go? Mr.Musgrave.

A. Yes. Straight down. I had my full 20 when I picked myself up the third time. As I was walking over there was a sudden application.

The following questions were then asked Signalman Colin Willis:-

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Q. How old are you? Sir Alan

A. Age 23.

- Q. When did you commence with the Railway Company?
- Q. What was the first train on the Up Slow?

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- A. No.95 Up was stopped at my home board on account of No.90 being in front of him.
- Q. Which do you call your home board?
- A. The one outside my box. No.95 was checked there on account of No.90 in front. He went straight up the Slow to Potters Bar.
- Q. How did you know he was there?
- A. By the track circuit.

Q. Does UA hold 2? You checked him at 2?

A. Yes.

Q. You did not pull off 2?

- A. I pulled off when he was clear. 3 was cleared by the time I pulled 2 off.
- Q. Did you have to operate these Brookmans Park signals?

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- A. Yes.
- Q. One lever?
- A. Yes, one lever-Green for the Slow road.

Q. Did they go Green straight away?

- A. Yes.
- Q. On this occasion?
- A. Yes, for the train concerned. I could not pull off until No.90 had cleared Potters Bar. At least I did not pull off until he had gone out on the Slow and the Slow road was clear.
- Q. Then what happened?
- A. He was on the block to Potters Bar, he was accepted and went up the Slow to Potters Bar.
- Q. When did you get Obstruction Danger?
- A. I received six bells at 10.7 from Potters Bar.
- Q. Clock right?
- A. Yes.
- Q. When was the clock checked?
- A. Saturday morning about 10 o'clock.

Q. Did you speak to the Signalman?

- A. I had just been in conversation with him and told him where the Up express was and apparently he pulled off for it.
- Q. When did you get the express on?
- A. 10.4.
- Q. Did you speak to him after that?
- A. NO.
- Q. When did you speak to Baines?
- A. I spoke to him when I got on for the express.
- Q. What were you talking to Baines about?
- A. I think it was to ask him if he was going to run it on the Slow road or if he was holding it for the express.

- Q. What did he say?
- A. He said he was going to hold it for 92 and he would run it after 92.

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- Q. 92 being what?
- A. The Grimsby express.
- Q. You got the Obstruction Danger at 10.7. Did you speak to the Signalman after that?
- A. He called me up and said what had happened after I had received the six bells.
- Q. What did he say?
- A. 255 Down had come into collision and that was all ... he said.
- Q. That was at 10.7.
- A. Yes, after he had given me the six bells for the obstruction.
- Q. Previous to that at 10.4 you had had a conversation with him. Tell me about that?
- A. I called him up and No.90 passenger was in the Slow road, that was the one before 95. I asked him if he was running No.90 before or after the express. He said I will let it follow No.92 express, that is the Grimsby train. In the meantime No.90 had cleared my track on the Up Slow road. When he cleared this track I cleared for No.95 and he went up to the autos and at 10.4 it left the autos.
- Q. You had no conversation with Baines about what you would do with No.95 like you had with No.90?
- A. No, I had already accepted one on the Main Line and the intention was to let the express go and let the slow passenger go on the Slow road.
- Q. Would you have otherwise diverted the train via Brookmans Park?
- A. If I had found out what was going Main Line I should probably have directed him out.
- Q. Is the discretion left entirely with you?
- A. It is between Potters Bar and myself.

Q. 95 left the autos at 10.4pm, that was the 9.32pm. Mr. Moss Was that train stopped at that signal?

- A. It was not stopped. Just as it got there the track was cleared and the signal was pulled off and it got a Green to go into the Slow road. He was slowed there.
- Sir Alan Con you tell where he was?
 - A. You cannot tell because it is all track working. Not unless he was standing at the autos.

Unless the track is occupied for a minute or so, you Q. cannot tell. You did not mean to convey that he had been stopped? Α. NO. You merely mean that he left that track? Q. Yes. Α. Q. When do you pull off that auto signal for a passenger train? Is the lever looked? It is locked right through to the Inner Home at Potters Bar. Α. Mr. Moss Ho cannot pull it off until ho sees that the track circuits are clear. You cannot pull off that signal No.4 until the track circuit UD. UE. UF, and UG. are cleared. You received six bells from Potters Bar. What time Q. was that? - . **!** . , the second second 10.7. Α. 11 11 Your records show signs of having been altered. Why Q. is that? А. I do not think so. Q. Why did you alter it from 10.9 to 10.7? Α. Because I was busy at the time and I looked at the clock. You did enter 10.9? Q.. I did enter 10.9, but on looking at the clock for the second time I saw it was 10.7. А. If you entered the time at (10.9,) did you alter it Q. at once? Yes, I altered it at the time. Α. I suppose the six bells surprised you? Q. It did for the minute. A. You had to write in six bells suddenly, you had got Q. 10.8 just above. What are those figures? Passenger train coming down the Slow road, Potters Α. Bar to Hatfield, 10.1 to 10.8. You entered that 10.8 correctly. The next moment Q. you put in six bells and is that what made you write 10.9? Yes, because I probably did not enter 10.8 when the Α. train went by. I had done all the others. Q. The 10.8 passed you after you got the six bells? It would be passing at the same time or about half a Α. minute after. You are satisfied that 10.9 was 10.7? Q. * Day 2 5-11-۸. Yes.

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Q. When was your clock checked?

A. It should have been checked 10 o'clock Saturday morning,

Signalman Harold Stanley Colbert was then called and questioned as under:-

- Q. What do you know of this accident? Sir Alan
 - A. Nothing at all.
 - Q. When did you get the Obstruction Danger?
 - A. I got six bells from Potters Bar at 10.11.
 - Q. When was your clock last checked?
 - A. I could not say, but it should be in the book.

Q. The clock had not been checked for days. Do you Mr.Green remember checking your clock?

A. It was when I was on early turn, 10 o'clock.

Q. How did you enter this 10.11? Sir Alan

- A. I can tell you exactly how this alteration came about. Originally I booked 10.11. Then Signalman Baines asked me what time he gave me six bells.
- Q. When did Signalman Baines ring you up?
- A. Some time afterwards.
- Q. How long?
- A. Up to 10 minutes or a quarter of an hour.
- Q. He rang you up and asked you what time he gave you the six bells?
- A. I said 10.11. He said it was before that. I said it might have been a minute before that, but he said it was 10.8. I altered my figure while I was talking to him on the telephone into 10.8., and afterwards I was thinking that my original figure was correct, so I altered it back to 10.11. It might have been a mistake half a minute or a minute previous. As soon as I got the six bells my first thing to do was to put my signals back for the following express, No.257 - the 9.55 out and put three detonators on the line, and in doing that I tripped over some wires and went sprawling. By the time I got up I cannot be certain within a minute.
- Q. Did you get your detonators down?
- A. Yes.

Q. Did you stop the train?

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A. Yes.

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A. It stopped at my Home signal.

Q. Did it explode the detonators?

- A. No. Actually there was no hurry so far as I went, because I had not got On Line, but you can never tell.
- Q. What train was that?
- A. No.257, the 9.55 out.
- Q. Following the 9.45?
- A. Yes.
- Q. At what speed did the 9.45 pass you?
- A. Well, I should say somewhere about 45 to 50 m.p.h.
- Q. Normal?
- A. Perhaps not so fast as normal; it did not pass me until 10.7 and it should have passed at 10.2. By my booking it was 10.7 and if the train had been running to time it should have been 10.2.
- Q. You did not know how fast your clock was?
- A. No.
- Q. Your clock was fast, evidently?
- A. Yes.
- Q. What time was the accident?
- A. 10.7. Mr.Johnson
- Q. It passed you at 10.7?
- Sir Alan A. Yes.

Colbert

Q. What is the running time between you and Potters Bar for that train?

A. $3 - 3\frac{1}{2} - 4$ minutes.

- Sir Alan It looks as though your clock was three or four minutes fast.
- Mr.Green It does not work on the previous entries like that.
- Sir Alan Have them examined, and let me know what the result is. Have the three boxes checked right through on the times and tell us what the facts are.

Mr. Johnson The express was three minutes late from King's Cross.

- Sir Alan It is suggested that according to the Potters Bar Signalman the accident was 10.7, yet this Signalman says it passed him at 10.7, and he is three minutes away.
- Mr.Green Did you book the train as it passed you?

A. yes, I got the Is Line Clear at 9.54, On Line from Colbert Barnet North at 10.5. I fave Potters Bar the describing signal at 10.7 and gave Out of Section to Barnet North at 10.7.

Q. Were you putting that in as the train passed? Sir Alen

- A. Yes, within half a minute I had reported it to Control, and I had already booked it then.
- Q. You reported it normally before the accident happened, to Control?
- A. Yes.

Sir Alan That can be checked by the report of Control. Then we must check Baines' book.

(Sir Alan looked at the Train Register Book).

Q. When Baines rang you up regarding the time he gave Mr.Goss you six bells, there is no suggestion, I take it, that he was asking you to enter a particular time in your Train Book?

A. Oh, no.

Q. He just wanted to check his own time?

Mr.Goss

A. Yes, I expect so.

Sir Alan Yes, that is all right.

I do not think there is anything more. I think we can close the public part of this Enquiry.

I want to ask Mr. Barton one or two things.

What about this cand drag. Mr. Barton? Why cannot we put in a send drag?

- Mr.Barton There is no room at present, unless the Superintendent says he never wants to put an engine there out of the way.
- Mr.Johnson Weldo, (Mr. Johnson explained the working to Sir Alan Mount on the plan, and the function of the spur).
- Mr.Barton I suggest it acts as a dual function. We have many more like that.
- Sir Alan The Great Western put in a sand drag after one of their accidents. I got them to do it.
- Mr.Barton There would not be a platform at the immediate end of it?
- Sir Alan No, there was not.

What, then, is the deduction to be drawn from this? That his clock was very badly wrong?

Mr.Goss If you check the times of the Marshmoor and Potters Bar books, I think that is a clear indication that as far as Greenwood is concerned, he must have been well out for time.

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Sir Alan IS Baines all right with his 10.7?

Mr.Green I do not know. These men get six bells, and it may have been a few minutes later.

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Sir Alan Yeş. It comes to this time lag in entering up books. If you are too busy and have to enter up books a little bit late it just catches you.

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Signalman George Thomas Baines was recalled and asked the following questions :-

Q. You have been very definite about your times here Sir Alan in your evidence - "The Peterborough - King's Cross train passed my box at 10-3."

- A. Yes, sir, from the Slow Road.
- Q. Is that entered up at the time?
- A. Yes.
- Q. When was your clock last checked?

A. At 7-50 on the same night. I put it back $2\frac{1}{2}$ minutes. Q. Did you do it yourself?

A. Yes, I had been on with Control as to the correct time. Our clock, when it wants winding up, always gains, and I asked what was the time, and I said my time was corrected by 2½ minutes, as will be seen in the block book, which is here now.

Why did you do it then? Any reason?

Well, I always check it up on a Sunday night to see what time it is, because sometimes we get our leg pulled. When you are sending on a train they say "Why do you not get a decent clock"?

You are satisfied that your clock was right time?

A. Yes, sir.

Q. You checked it at 7, and you are satisfied all the times you have in your book are correct?

Mr. He made the entry at 7-50, and there is no doubt about Green it. That clock does go wrong on a Sunday night.

Sir Alan It has been mentioned to me that the clock stopped after the accident.

Baines Yes, that is correct, sir.

Mr.Green When I walked up in the box the clock was $10-10\frac{1}{2}$, and it stopped there.

Q. Why did it do that?

Sir Alan

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Q.

А.

Q,

Because a piece of wood was knocked off which covers the wiring and it knocked the clock on one side and stopped it, for the pendulum was not going equally.

Q. Then the Greenwood signalman tells me that you rang him up sometime after the accident to check his time?
 A. Yes, sir.

- Q. He puts down 10-11 as the time of your "Obstruction Danger" signal. What was the time of your "Obstruction Danger" signal?
- A. 10-7p.m. May I ask, sir, what time the Greenwood signalman gave me the describing signal for 255 Down, the 9-45 out?
- Mr. Johnson, 10- 7.
- Baines I have got 10-5, so that would equalise it out. It shows there is a two minutes difference.
- Mr.Green. I have analysed in that book since 7-50 the difference in times between Greenwood for all entries, and you will see there is a variation of time of two minutes in the trains, but there are four minutes in this six bells signal.
- Sir Alan. And Greenwood is saying six bells came two minutes later?
- Mr.Johnson He is saying four minutes later that is Signalman Baines' suggestion.
- Sir Alan. Let me have a note about that. Have the books analysed. In your evidence, Baines, you say "The next thing I saw was the engine had run into the buffer stops. It was then 10- 8p.m." Why did you send "Obstruction Danger" signal at 10- 7p.m. if the accident had not happened?
 - A. Because I could not avoid the No.95 Up, that is the 9-32 from Hatfield, running into the stop blocks unless there was any possible hope of my getting it out on to the Main Line.
 - Q. But why "the next thing I saw was the train was running into the buffer stops" - you put the accident, then, at 10-8?
 - A. Yes, sir.
 - Q. Your accident time is 10-8, yet you send the "Obstruction Danger" signal at 10-7, and it seems to me that it is against yourself. Here is the Greenwood signalman saying you sent it at 10-11, less 2, it might have been 10-9. I cannot understand 4 minutes out, and why are you suggesting that you sent this "Obstruction Danger" signal so soon?
 - A. I thought there was some danger else I would not have sent it. I sent it both to Marshmoor and to Greenwood when I saw that the passenger train had over-run his signals.
 - Q. Before the collision took place? Before he collided with the buffer stops? Before he collided
 - A. Oh, yes, sir, I think I was justified in that.
 - Q. Yes. When did you realise this train was running past your Inner Home signal?
 - A. I realised that the train was running past my Inner Home signal when I saw it approaching past the Inner Home.

- That Inner Home is about 4 mile away. You could not tell, could you? It might probably have been nearer.
- A. I won't suggest it was nearer than that before I saw it. We have got a diagram stuck in front of us, and I was probably looking back for the Down Express. Then, casting my eye back I saw that the train had over-run his signals. Then I sent the "Obstruction Danger" signal.
- Q. You had a previous train on this Slow, and you say it passed you at 10-3.
- A. That is correct.

Q. Did you immediately put back the crossover?

- A. Certainly, sir.
- Q. No doubt about it?
- A. No, one does that automatically.
- Q. Did you put back the signal?
- A. Yes, sir.

Q. When did you pull off for the Up Express?

A. At 10-7, according to my book.

Q. Well, then, where would the Up express have been when you pulled off?

- A. According to the running of the train, may I say in passing that the Up train must have been moving very quickly, it was two minutes from Hatfield, and two minutes to come into the Obstruction.
- Q. Where do you get that from?
- A. I got that from Marshmoor. Marshmoor told me he was running very well.
- Q. You say you pulled off for the Up express at 10-7, that is in your book. When would that have happened? Where would that train have been when you did that?
- A. This train would have passed my Outer Distant, and he would not be far away from my Distant signals.
- Q. What was in front of him on the Up?
- A. Nothing on the Up, sir.

A. .

Q.

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Q. Surely your working is such that the Distant signal is not lowered just in front of a train, but well in front.

The Distant signal was lowered at 10-7.

- Where, in the course of your experience, was that train? It was within sight of the Distant signal?
- We get the describing signal from Marshmoor. This was really 10- $6\frac{1}{2}$, but by my clock 10- 7.

		ୡ୶	And you think it was approaching or passing Marshmoor then?
,	•	Α.	It would have passed Marshmoor then.
، ئىم ب		Q.	It is Marshmoor's entering section signal?
		Ά.	Yes, sir.
			As the train enters the section he describes to you?
		A	Yes. at the second seco
		Q.	Marshmoor is how far away from your box? Three miles is it not? The train entered your section - ?
		A.	Doing say 50 or 60.
		Q.	Well, 60 has not been mentioned, but even 60, three minutes away.
		Α.	He would get my Outer Distant.
	Sir	Alan,	You pulled off for this train, all your signals, and it was three miles away. That is three minutes. He had at least $1\frac{1}{2}$ minutes to run before he saw your Distant signal.
	Mr.	Noss.	He is referring to the Outer Distant. That would be at double yellow or green, and is the same signal as the Up Main Intermediate Block Home.
	Sir .	Alan.	I understand, this descriping signal which Baines received at 10-7, was transmitted by Marshmoor to Potters Bar at 10-6.
		Goss,	That was the train passing Marshmoor, and the train is then three miles away, and Baines says he received that signal at 10-7. He pulled off for it.
	Mr.	Moss.	The signalman also said the train would get a sight of his Outer Distant.
	sir .	Alan.	Is that one of your double yellows?
127-122	Mr.	Moss.	Yes of such as the second such as a subscription of the second such as
	MrC	tenas.	right away from Potters Bar on the Main Line only, but not on the Slow Line.
	Mr.	Moss.	He gets a green on the Slow Line and he is clear to the Inner Home.
	Sir .	Alan.	Mr. Moss, will you give me a note of this.
	Mr.	· · 2	The Outer and Inner Home signals are proved as having been replaced behind a train before the Intermediate Block Home signal will go to green.
142.5	11.11		He has a semaphore Distant following that green similar to the Main Line only the reading of the two green colour lights is different insofar as if he gets a green on the Slow Line he must be prepared to stop at the Outer Home.
		•	and a second second In the second

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Sir Alan. That does not alter the times of Signalman Baines. At 10- 7 Mr. Moss, he pulled off, and that train was three miles away.

Mr. Moss. Yes.

Sir Alan. Then when did you say the accident happened, at 10- 8?

Baines Yes.

Sir Alan. This is proof that the Down train arrived at 10-8 and the collision occurred immediately afterwards. Is that right?

Bainea Yes, sir.

Sir Alan. The Up express was still approaching, and was half way through his three miles to get here, and I think that is fairly proof positive that the Up express arrived quite sometime afterwards - after the collision had occurred.

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Baines Will you allow for the half minute that I spoke of? As I said before, the describing signal was 10-61, I make it 10-7. In that half minute he could get a long way if the train was going 60 m.p.h.

Sir Alan. You could get half a mile.

Baines But if I might make a suggestion, that this train was going over 60 m.p.h.?

Mr. Goss. On the question of times, I was just wondering whether that would apply to the time for the "Obstruction Danger" signal, whether it was $10-7\frac{1}{2}$ and he puts, 10-7 for it.

Sir Alan. Why were you so keen to get this "Obstruction Danger" signal checked?

Baines Because I was anxious to get a correct book. I knew that if any accident occurred there would be a Company's Enquiry and also a Board of Trade.

Mr.Cleaver. The accident had occurred.

Baines There was no ulterior motive in my mind.

Sir Alan. No, I am sure there was not.

Baines. It was simply for checking, sir. We do check now and again, one with another.

Mr. Goss." I think you can expect that as being a normal action.

Mr. Green. Might I ask if he checked with Marshmoor as well as Greenwood?

Baines Yes, sir. I do not think I am a long way out with Marshmoor.

Sir Alan. You got the other chap so excited that he altered his time to 10-8 and altered it back to 10-11.

Baines I was in the midst of it, sir, and I did not get excited.

	Q. ***	We know that you pulled off for the express at 10- 7. When did you throw back your signals, at 10- 87
	Α.	No, they would be put back before that.
	Q.	Did you say the accident happened at 10- 8?
		Yes. As soon as ever I sent the "Obstruction Danger" signal I rushed back to the Up Main and put them back. Then the Outer track, (UM, N and O) was occupied. The first indication was occupied and the second indication was not occupied.
	ୟ	What does that mean? Had he passed the Distant signal?
	A.	Yes, sir, he would have passed the Outer Distant when that light is up.
	Q.	That was when you put the signals back to danger?
-	A,	Yes, sir.
	Q.	You put them back later than one would imagine?
	А.	I put them back as soon as possible. I sent the "Obstruction Danger"; I rushed back to these signals and put them back. He was then on (UM, N, O) indication, but UO was not lit up, therefore he was outside the Outer Home.
- 3	Q.	Yes, we have been told by a Fireman that he saw the Inner Home go to danger; but he passed the Outer Home at clear?
	A. ·	Yes.
Sir	Alan.	There must have been a long time - 10- 7!
		Well, I do not agree with that, sir. I know definitely, I am positively sure that (UM, N, O) only was lit up.
		Well, I do not agree with that, sir. I know definitely,
	les -	Well, I do not agree with that, sir. I know definitely, I am positively sure that (UM, N, O) only was lit up. But the Distant signal - he might have passed or might not have passed the Distant signal. You had to put
	б. Јав	Well, I do not agree with that, sir. I know definitely, I am positively sure that (UM, N, O) only was lit up. But the Distant signal - he might have passed or might not have passed the Distant signal. You had to put back the Outer Home 11?
	ав Q. А. Q.	Well, I do not agree with that, sir. I know definitely, I am positively sure that (UM, N, O) only was lit up. But the Distant signal - he might have passed or might not have passed the Distant signal. You had to put back the Outer Home 11? Yes, sir.
	ав Q. А. Q. А.	Well, I do not agree with that, sir. I know definitely, I am positively sure that (UM, N, O) only was lit up. But the Distant signal - he might have passed or might not have passed the Distant signal. You had to put back the Outer Home 11? Yes, sir. You had to put back the bar 4, and pull the crossover?
	ав Q. А. Q. А.	<pre>Well, I do not agree with that, sir. I know definitely, I am positively sure that (UM, N, O) only was lit up. But the Distant signal - he might have passed or might not have passed the Distant signal. You had to put back the Outer Home 11? Yes, sir. You had to put back the bar 4, and pull the crossover? Yes.</pre>
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	ав Q. А. Q. А. Q. А. Q.	<pre>Well, I do not agree with that, sir. I know definitely, I am positively sure that (UM, N, O) only was lit up. But the Distant signal - he might have passed or might not have passed the Distant signal. You had to put back the Outer Home 11? Yes, sir. You had to put back the bar 4, and pull the crossover? Yes. You were too late in pulling the crossover? Yes, that is right, sir. You pulled the crossover, hoping that you would pull it in time? Yes sin</pre>
	ав Q. А. Q. А. Q. А. Q. А. Q.	<pre>Well, I do not agree with that, sir. I know definitely, I am positively sure that (UM, N, O) only was lit up. But the Distant signal - he might have passed or might not have passed the Distant signal. You had to put back the Outer Home 11? Yes, sir. You had to put back the bar 4, and pull the crossover? Yes. You were too late in pulling the crossover? Yes, that is right, sir. You pulled the crossover, hoping that you would pull it in time? Yes, sir.</pre>

Baines Will you allow me, sir, to give my definition of it? The reason why I was trying to get the 9-32 from Hatfield out was in the hope that the Driver of the first part of 94 Up would see the signals go back in time, and pull up before entering the station, where 95 would be.

Sir Alan. Yes, you would have effected that.

Baines That was my intention, sir.

- Sir Alan. And you very nearly pulled it off. But you were too late, and I am trying to think - you could have acted, I think, some time before. That is my trouble. You pulled off at 10-7, the train was then three miles away, the accident happened at 10-8, and you had two minutes in which to do it.
- Baines I had to go back to the other end of the box and put the Down Main Line signals at danger as well, and then run back again.
- Sir Alan. No it was all over at 10-8. The Down train came in under clear signals, and practically as the collision happened, practically as he ran into the buffer stops. It was only a few seconds after that.
- Baines I do remember, sir, the Down signals being put back to danger. I know well he passed the Distant signal at Green. He had also passed the Outer Home at green, I am not positive of the Inner Home.

Q. The Inner Home is opposite your box?

A. No, sir, it is on the south side of the station.

Q. The Driver of the Down train did not see the Starter?

- A. No.
- Q. He has said that he passed the Inner Home at green, but he did not see the Starter, and I think you may take it that the Down train came in under full steam. He had the regulator on. You put the accident at 10-8. The collision with the Down train was immediately after the buffer stops had been hit?
- A. Yes, sir. He was the first one to go into the debris.
- Q. Would you like to call it 10 seconds? 20 seconds? Was it a minute?

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A. No, sir.

Q. Not half a minute?

A. No, sir.

Sir Alan. Therefore the collision with the buffer stops and the collision with the Down train occurred at 10-8, and you had pulled off for the Up train at 10-7 - a minute before, and that Up train was then the best part of two miles away from you. It looks to me as though you had a couple of minutes in which to act and to pull over that crossover. It was most unfortunate that you did not get it over just in time. Baines Yes, I regret that, sir.

- Sir Alan. You thought you were doing it just as quickly as you could. I think you had a little more time than you thought.
- Baines I want to point out most emphatically that when I put my signals to danger on the Up Main the only indication was on (UM, N, O). Therefore he had already passed the Inner Distant, and he very probably could see the indication on the Outer Home.
- Mr. Moss. I do not see how he would know that, sir. You cannot tell the position of a train by that indicator going occupied. It goes right back to the Outer Home, 200 yards away.
- Sir Alan. Did not the Fireman of that train say he got the green at the Outer Distant?
- Baines Yes, sir. I quite agree with that. He very probably would get a green at the Inner Distant.
- Sir Alan. If the accident happened at 10-8 I should have hoped that you put the signals back quickly enough for him to get a red at the Outer Distant.

Section 2 States 1

- Mr. Moss. No, double yellow, sir.
- Mr.Barton.Would he not hesitate a bit wondering whether he was going to pull the express up?
- Sir Alan. Yes, I am sure he would.
- Baines The only thing I can say is that the signals were put back to danger as quickly as humanly possible, after I saw the train had passed the Inner Home at danger.
- Sir Alan. Is that the right method of operation on the Slow Line? How do you know you did not leave the Outer Home on the Slow Line off?
- Baines It could not have been done, sir, because I should have to put No.11 and No.4 back.
 - Q. To get the crossover normal?
 - A. Yes.
 - 9. After you operated No.90 train which you had, you had to put the crossover back to normal to pull off for the Up Main?
 - A. Yes, sir.
 - Q. You pulled off for the Up Main at 10-7? And the previous train had been over there at 10-3? You had plenty of time - 4 minutes - no question of your leaving off the Outer Home?
 - A. No, sir.

Q. You did not change your mind or anything like that?

A. No, sir.

Q.	You were not giving preference to this local train in front of the express?
Α.	Oh, no, sir.
ର•	In fact you could not have pulled off for it?
A•	No, sir, mechanically locked. At least, the Inner Home would be.
ୟ.	Well, then, according to your statement which you made, you were under the impression that the Up train had been stopped?
A.	Yes, I was putting myself on the back and thinking I had done one good job tonight, anyway.
Q.	When did you hear the Up express had come into it?
A.	Later in the evening, sir. I knew the Up express had crashed. No one told me it had crashed, but I knew very well that it was in the vicinity, or should have been on account of the tracks being lit up.
ର୍ •	Did you not hear the collision?
A .	No, sir, there was no noise. Not with the Up express.
Q.	What steps did you take to ascertain what had happened?
A•	Mr. Dickinson who lives at the Station House, he came out almost immediately and had a look round, and he said what had happened.
Q.	You knew within "O minutes then?
Α.	Yes.
Q.	Then how did all this sturf get into the Press?
Α.	I am not prepared to say that, sir, that is out of my jurisdiction.
Mr.Goos.	Reporters have a wonderful sense of imagination.
Q. Sir Alan.	You have just told me you thought you stopped the Up express. You could only have been under that misapprehension for about 10 minutes after the accident. You must have been one of the first to know what the facts were.
Α.	I could not see the first part of 94 through the debris which was in front of my view.
Q.+	But you were told within 10 minutes?
A.	I do not know who by.
Q	But you knew the engine had come to grief?
A.	Yes, but I do not know who it was that told me.
ୟ•	How does it get about that the Up express had been brought to a stand clear of the accident?
Α.	I have no knowledge of that, I think you will have to leave me out of that.

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Mr. Goss. On the day of the accident I heard three different stories when I walked into the station yard.

Q. Could you tell me what was the speed of the local Mr.Cleaver. train?

- Baines I should estimate the speed of the local train before it came into the buffer stops
- Mr.Cleaver. How could you tell it had passed your signal at danger?

A. Because it kept going.

Mr.Cleaver. You had no instrument to indicate that?

A. No.

- Mr.Cleaver. What would be the speed of the train when he passed your signal, when you made up your mind he was running away?
 - A. I should put it down as the general speed of a local passenger train coming into the station and doing its work.
- Mr.Cleaver. You could not determine whether he was doing 40 or 10 only from the noise?
 - A. I could not estimate any speed. The only speed I could give would be as the speed of a local train coming to stand in the station.
- Mr.Cleaver. How did you determine he had passed the Inner Home signal?

A. Because I saw the light on the front of the engine.

Mr.Cleaver. Was he carrying one or two lights?

A. One light.

Mr.Cleaver. Have you ever had other engines pass that signal, coal trains, goods trains, etc., unable to stop?

A. No, thank God, I have not.

- Mr.Cleaver. Would it be quite possible that this Driver may have had some difficulty with his brake and may have passed your signal two or three coach lengths?
 - A. That is out of my jurisdiction.
- Mr.Cleaver. You are a signalman of considerable experience and you know that Drivers do sometimes pass signals owing to some defect on the engine or error of judgment. What determined you to give six bells when a train was on a right line, running into a safety device to protect the Main Line?
- Sir Alan. He gave the runaway signal anticipating the collision with the dead end, and he did that because he thought the Up Main Line was going to be fouled in consequence.

Mr.Cleaver. On the other hand there is a possibility that the Driver was having some difficulty within 20 or 30 yards of the stop.

I know, Mr. Cleaver; I think if the Signalman Sir Alan. thought this man was going to over-run and collide with the buffer stops he would be criticised for not sending six bells if he thought the line was going to be obstructed. 1.10 Except that it is not in accordance with the Mr.Cleaver. regulations. You only send six bells when the line is obstructed. If you have a train entering your section, for which you have not received the "Is Line Clear" or Mr. Green. "Train Entering Section" you send six bells. Mr. Cleaver. If the Signalman observes that a Driver is braking and can see the Driver is going to stop within 60 yards past on the wrong side of the signal, he would not give six bells. Mr. Goss. He could not see he was braking. 1 (L. Sir Alan. Did you know the Driver was braking? : ' . Baines No. sir. Sir Alan. He realised the Driver was passing the Stop signal at danger. Mr. Cleaver. The Driver having the assumption that he had got the road and was going into the station. Baines The only thing I can say is that I am sure that he had run past his boards.

Mr. Johnson. Is it not a fact that about rather less than twelve months ago you did have these stops knocked down by some wagons, and they did foul the Up Main Line?

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Yes. - 11 Jan 1 Baines

Mr. Johnson. Possibly you had that in mind? Yes: "Provide the second of the

Baines

Mr. Cleaver, You were on duty then?

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Mr. Cleaver. You do not know if the engine passed the signal at danger on that occesion? المية اليالية

Baines No. المارية بالمراجب المراجب والمتلاق بالمواقعة المحاف المحاف المعاد المحاف المعا

Mr. Cleaver. Do you remember any accident where a Driver has passed the signal and run into the stop blocks when the signal has been showing green?

Baines No.

Mr. Cleaver. You have not beard from any of your mates in the box? Alex Car No Baines

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- Mr. Goss. The point I would like to bring out so far as the Signalman is concerned is that it was not his job to worry or anticipate what the Driver had got in mind, but to take some action on what he found.
- Mr. Davies. Another thing is that if the train had been going at 15 m.p.h. between the Inner Home signals and the facing connection, he only has $\frac{3}{4}$ minute to make up his mind.

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- Mr. Barton. If it had been going at 20 m.p.h. he would only have a few seconds.
- Sir Alan. The speed, I imagine, at which the train hit the buffer stops.

Mr. Davies. I should think 25 to 30 m.p.h.

Sir Alan. Is that normal speed for a train entering the platform?

Baines That is rather fast.

Sir Alan. Is there a restriction over this croseover?

- Mr. Johnson. There is a 10 m.p.h. restriction over this crossover.
- Sir Alan. I am very anxious to hear what Trigg has got to say.
- Mr.Musgrave. I understood Baines to say that the Up train took two minutes to Marshmoor and two minutes Marshmoor to the obstruction. I do not think he is correct there.
- Mr. Davies. Hatfield to Potters Bar is 4 miles.
- Mr. Goss. I think you have got to pay some regard to the half minute business. He gives half a minute one way with one train; he may give another train half a minute in another way.
- Mr. Green. I wonder if he means Red Hall rather than Hatfield. It is two minutes from passing Red Hall box in rear. Perhaps it is Red Hall he has in mind, not Hatfield.
- Sir Alan. I think it is only Signalman Baines trying to stress how fast this train was going.
- Baines I only wanted to suggest he was going very quickly. Marshmoor told me "By gum, Tom, he is going".
- Sir Alan. Well, what has that got to do with the fact that you were a few split seconds late in pulling over that crossover? Has it anything to do with you?
- Baines No, but we do compare. Some of the expresses will come from Hitchin to Potters Bar in 20 minutes, some will take 23. We very often compare speeds.

Sir Alan. Some of them take loss still?

Mr. Goss. It depends on the coal.

Drive	r Stanley Trigg was recalled and questioned :-
Q. Sir Alan.	You have been working the metropolitan link - have been on that link for approximately one month. What was your knowledge of this line - and the Slow Line in particular? When did you go over this road before?
- A.	Three months previously.
Q.	Was this the first time you had been over the road between Hatfield and London after three months?
Α.	Yes, sir.
Q.	Is this the first time you have been over the Slow Line since the block working has been reconverted?
Α.	Yes, sir
• Q.	Have you signed for the road?
Α.	Yes, sir. We sign for the road every six months.
Q.	You stopped last at Brockmans Park. On which wide of the platform?
Α.	I was on the Slow Line, the platform was on my side.
Q.	You remember that?
Α.	Yes, sir.
Q.	You are sure?
Α.	Yes, sir.
ই •	Did you know you were on the Slow Line?
Α.	Yes.
Q.	You are sure you did not think you were on the Main Line?
Α.	No, sir.
Q.	What happened to you?
A	I left Brookmans Park when the Guard gave "right away", I had a green light at the auto.
Q. · · · ·	What had you at the Distant?
А,	Potters Bar Distant.?
Sir Alan	Yes.
Trigg	Orunge light.
Q.	What was the Main Line?
Α.	Orange light.
_ Q.	Two orange lights. Well, that pught to have warned you. You went on prepared to stop at the next stop signal?
A.	I aid not see it come off, it was green when I looked at it.
Sir Alan.	That is contrary to Baince' evidence, Mr. Moss?

	Mr. Moss.	It all depends how far you were from the signal when you looked at it.
	Trigg.	I had passed the Distant signal and T shut off steam going underneath it.
	Mr. Moss.	Would you put it at 150 yards away from the signal?
•	Trigg.	I could not say so far as the Distant is concerned.
	Q. Sir Alan.	You had a green, and what was the other signal on the Main Line?
	A	I never saw any light in it,
	Q.	But there are two lights there?
,	Α.	The only light I saw was the grean light applicable to me, on my right.
8	Q.	The Outer Home? You saw the Outer Home green?
	Α.	It was off at my right, and the other one was red.
	Q.	And what time was this? 10.7? 10.8?
	Α.	It would be about that, sir. I do not know if it would be as late as that. We left Hatfield at 'fifty two'. Probably 10.5. I do not think it would be 10.7 or 10.8.
	Sir Alan.	What time did he leave Brookmans Park? Have you got that settled? What does the Guard say?
	Mr. Green.	10.6.
	Sir Alan.	Is this the woman Guard?
	Mr. Green.	Yes.
	Q. Sir Alan.	You say you had a red light on the Main Line. What happened at the Inner Home? When did you start to brake?
	Trigg.	When I saw the Inner Home signal off ready to go through the lead.
	Q.	But the Inner Home was at danger?
	£	There was a red and a green light, and I am certain that the signal that was off was my signal, the left-hand signal. I had already made a partial application ready to go through the lead to stop in the platform.
	₩.	What speed aid you get up after your stop at Brookmans Park? At what speed did you pass the Outer Home?
	h.	About 40 m.p.h.
	ୟ.	Is that a fair estimate?
	Å.	Yes, sir, I think so.
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	Q.	Are you certain about these Inner Homes? I gather from your evidence you are not. You say "I saw the Inner Home signals, one of which was red and the other green. I was almost certain that the signal in the "Off" position was the one applicable to the Up Slow Line".
-	A	It might be the way I was talking, sir, but I should not have passed it if I had not been certain it was mine
	Q.	You do not know this line? You have never been over it since this working was introduced? Are you sure you did not momentarily think you were on the Main Line?
	Α.	No, sir, I am sure of that. Brookmans Park platform . would have told me that.
	U .	What speed were you going to take that crossover?
	А.	15 m.p.h. 200 10 10 10 10 10 10 10 10 10 10 10 10 1
	Q.	What is the speed restriction over it?
	А.	15 m.p.h. I think, sir.
	Q.	But you are tantamount to telling me that the signalman had set this road for you, and had pulled off.
	А.	Yes, sir. I saw the signal, and I am sure it was my signal.
-	Q.	40 m.p.h. 10.6 and the accident happened at 10.8. according to the Signalman, and the Signalman says he pulled off for the express at 10.7. What length of view did you get of these signals?
-	Α.	A good view, sir.
	Q.	Two or three train lengths?
	А.	Yes, sir.
	ର.	Are you sure?
	A	Yes, sir. There is just a little bit of a curve.
	Sir Alan.	Wan you get that checked up?
	Mr.Johnson.	Yes.
	Sir Alan.	They are good signals to see?
	Trigg.	Yes, sir.
	Sir Alan.	You were stopped at Hatfield on the Slow Line at the Advance Starting signals, approximately 2 minutes, I have been told-why, because of the train shead? Mr. Moss, could not that Outer Home have been left off?
~	Mr. Moss.	No. 11? If 11 was off he could not have done anything with 7.
	Sir Alan.	Could the Signalman have left off 11?
-	Mr. Moss.	That means to say whatever position 7 was in, if he did leave 11 off the points would have to be locked. 11 is released by 4.
	Sir Alan.	And does 11 affect this auto at Brookmans Park?.

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Yes, insofar as they have got to be replaced behind Mr. Moss. a previous train before they come off. If the - ¹ . Signalman had 11 off, the signalman at Marshmoor could not have pulled 4. He said he got a green there, and it proves the previous train cleared the tracks and the signals had been replaced behind the previous train, and they could not have been left off. Sir 4lan. So therefore he makes his statement that he pulled 4 and 7 afterwards. Suppose he forgot to do that, to put back 4 and 7? Mr. Moss. He might have put the signals back, is that your point? Sir Alan: He put back 11 and 12 and perhaps 10. Mr. Moss. He could not take his Main Line signals off then. ÷ ? ? Q. Sir Alan. What was the speed of the collision when you went into the buffer stops? Trigg. I was taking the lead at about 15 m.p.h. and the buffer stops are close to the lead, so that would be about the same. Did you see the Down express collide? Q. Α. Yes, sir. Q. What speed was the Down express travelling? Α. About 30 m.p.h. We were a bit shaken at the time, but I should say about that speed. Q. Were you quite fit for duty? h. Oh, yes, sir, quite all right. Q. There was nothing on your mind? . : 2. No, sir. Is the view from your engine a good view? k., Α. Yes, sir. ··· ; Q. I did not actually get on it, but I know the engine. You do not seem to know the road very well? Α. Yes, sir, I know the road well. Q. But you had not been over it for some time? Α. I should not have gone over it if I had not known it. ar. Cleaver. How long were you firing? About 6 years. _A. Mg.Cleaver. You could remain off the road and go 6 or 12 months, and still retain it in your memory? ι. Α. Yes.

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Mr. Cleaver.	If you had wanted a pilot you could make a request, and that would be granted?
Á.	Yes.
Mr. Cleaver.	And like everyone else at King's Cross you knew there had been an alteration during the last five weeks?
A.	Yes.
•	With regard to the statement you made at the Company's Enquiry; you say you were almost certain. What are you trying to tell us? Are you trying to emphasize that that is the signal, and you are trying to stress your position, and inadvertently you have used the wrong word? 'Are you not as confident regarding the aspect of the Inner Home signal as you are of the Outer Home signal?
Α.	Equally as confident, sir.
Mr. Cleaver.	Did you actually use the word "almost"?
Α.	Yes.
Mr. Cleaver.	In your first report I think you said you are confident the signal was off?
A	I said. I was sure.
Mr. Cleaver.	You now tell me you are equally as certain that this signal was off.
A.	I am certain.
Mr. Johnson.	was read over to you, and you heard it.
Sir Alan.	What other report have you Mr. Cleaver?
Mr. Cleaver.	A man generally leaves a report with his Superintendent when anything happens. I got a copy of it.
Sir Alan.	Do you want the word "almost" out".
Mr. Cleaver.	I want to know where it came from, and if it is the intention of Trigg to leave it there.
	There is no suggestion of that, Mr. Cleaver. Do you really think you were dead certein about this?
Trigg.	The word has got in the report by the way I spoke. If I had not been certain it was my signal I would not have passed it.
	It was quite definitely brought out when I put it to Trigg, and it was his own wording "I was almost sure"
는 것으로 가져 있는 것에? - 제품	I remember that word, and I think my colleagues remember it, and I was most careful when we read the statement over to read that to Trigg. He accepted
	it as the statement that he made.
· .	It sounds a very reasonable statement.
Mr. Cleaver.	When a man is involved in this way he is very disturbed. In his original report he says "I am sure".

Mr. Cleaver. That is in the original report to the Railway Company which it is necessary for a man to leave before he goes off duty.

What has caused these words "almost certain" to creep in.?

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- Sir Alan. We are putting a meaning on "almost" which probably he does not. Do you have any objection?
- Mr. Musgrave. I do not like the term. I think he ought to have qualified that When he had the opportunity. He had the opportunity when Mr. Johnson saw him of saying that he was certain.
- Mr. Cleaver. If that statement is not correct, I think the man should have an Opportunity of putting it in order now. I do not think it will agree with a statement he made previously to the Company.
- Sir Alan. When did you make that statement?

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Trigg. The next morning, the Monday morning.

Sir Alan. "I am almost certain" is weaker than "I am sure".

- Mr. Johnson. I can turn out the shorthand notes of what took place, and I was quite clear about the point when I put it. I said "Are you absolutely certain?" and his reply was "I am almost certain" and this was read over to him. You agree that what is down here is an actual representation of what you said there?
- Trigg. Yes.
- Sir Alan. Why are, you altering it now?
- Wr. Johnson. I think the other Officers will agree with me that there was doubt on the point.
- Sir Alan. What is Trigg saying now, Mr. Cleaver? He is not saying "I am almost certain" he is saying "I am sure".
- Mr. Cleaver. That is what he is saying at the Ministry Enquiry.
- Mr. Goss. If he is certain it means that the signalman is wrong. I would like to ask a question on that statement. I think it is rather an unusual thing for a driver to report being involved in an accident and saying in the first report to the Superintendent that the Outer Home signal was off, and "I am sure the Inner Home signal was off". I should suggest that it would be just a normal statement to the Superintendent to the effect that he was involved in an accident, and as far as he was concerned all signals were off.

To specify two particular signals in the first statement seems rather outstanding.

Sir Alan. He had no obligation to put in this report? Mr. Musgrave. Yes, he should report any irregularity.

- Sir Alan. It is signed at a different time from the time you made the report out.
- Trigg. I made the report out at home and signed it at the shed.

Sir Alan.	Why did you not sign it straight away?
Trigg.	I was going to put it on a proper report form.
Sir Alan.	Were you asked for a report?
Trigg.	No, you put in a report for all irregularities.
Mr. Goss.	My point is that it is rather unusual to specify
	twp particular signals, one of which happens to be rether putstanding in this Enquiry. One he says was off, and the other he says "I am sure was off" and that is the one about which there is some dispute.
Mr. Davies.	He is sure of one and not sure about the other. He knows one was off, and he is certain the other was off.
Sir Alan.	It is much more certain than "almost certain".
	I propose, gentlemen, to explunge the word "almost".
}	So far as we are concerned, on the Company's side, I am emphatic about it. He did use the word "almost" and it did convey to the other Offlicers present a certain element of doubt, and was the subject of comment afterwards. It did convey doubt to us. I think you will agree, Mr. Frampton.
Mr. Frampton.	Yes, certainly.
	Would it be right to say that on reflectfon he desired to leave this word out? On reflection he wished to withdraw the word?
Sir Alan.	Not that I think there is any reflection for me to report on this aspect of it.
Firema following ques	an Leonard James Dungate was recalled and asked the stions:-
Q. Sir Alan.	You said you were engaged in breaking up a lump of coal, and looked out as you were approaching the Inner Home signal and saw that the signal for the Up Slow was in the "Off" position. Do yoù remember that?
A.	That is correct, sir. The driver had applied the brake before we got to the Inner Home.
Q.	What was the main line signal showing?
A. '	A red light.
	What was the main line signal at the Outer Home?
Α.	A red light also.
Q.	And the Distant signals?
Α.	Both yellow.
Q.	Do you know this road?
Α,	Well enough, sir.

- Q. When were you last over this road?
- A. Very recently, a week before.

Q. How much firing experience have you had?

A. $6\frac{1}{2}$ years.

Q. And you know this road, well, do you?

A. Yes.

Q. If I suggested to you that the Main Line signal was Creen and the Inner Home on the Slow Line red, how would you view that?

Dungate. Which way do you mean?

Sir Alan. You are suggesting that the Slow Line was green and the Main Line was red at the Inner Home. I suggest to you that you were wrong, and that the Main Line was green and the Slow Line red. I should be quite wrong, should I?

Dungate. Yes, you would be wrong.

Q. You are very certain about that?

A. We should not have passed the board otherwise.

Q. And what speed were you taking this crossover at?

A. I could not quite tell you. I was occupied in breaking up a piece of coal.

Q. What speed did you hit the buffer stops?

A. It was not hard. I could not say what speed.

🤉 15 m.p.h.?

A- About that.

Did you have any conversation with Trigg immediately afterwards about the boards?

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Nursate. When do you mean?

Sir Alan. After you had collided.

Dungate. Not to my knowledge.

Q. Did you disouss it?

A. I cannot remember, I am afraid.

- 9. You have never worked over this road with a passenger train?
- A. Not Slow Line,

O. This is the first time?

A. Yes.

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9. But you have been over it in a freight train? How long ago?

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	Q.	So you have not been over the read for about a year?
	Α.	Not the Slow Line.
	Q.	You have not been over the Slow Line for a year, but you had been over the Main Line previously?
	Α.	A week before.
	ୟ.	You knew where you were?
	A.	Yes.'
	Q.	I suggest that you thought you might have been on the Main Line. How would you view that?
	Α.	I should have looked at the Main Line signal if it had been on the Main Line.
	Q.	You knew you were on the Slow Line?
	Α.	Yes.
цų.	Q.	You stopped at Brookmans Park. Which side was the platform?
	A.	Driver's side.
	Q .	Do you think Driver Trigg might have forgotten that he was on the Slow Line?
	A.	No, definitely not.
	Q.	You are quite satisfied you both knew you were on the Slow Line.?
	A.	Yes.
	Q.	Nothing wrong with the engine?
	Α.	No.
	Q.	Injector all right? Coal all right?
,	A. · · · · · · · ·	Yes.
•	questione	Signalman George Thomas Baines, again recalled, was
: : :		You had this train passed you, No. 90, at 10-3 and the accident happened, according to you, at 10-8, 5 minutes later, and you'did not pull the signals for the express until 10-7. You say this, that after the passage of No. 90 you put back signals 12, 11 and 10. Is that right?
	A.	Yes.
	Q.	You put back bar 4 and point 7. I am going to suggest to you that you put back signals 10, 11 and 12 and that you did not put back bar 4 and point 7. You forgot that crossover, bar 4 and point 7, and you had this other local train described to you and you left 10 normal but you said you lowered 11 when it came on to a certain track circuit. You lowered No. 11 when UG was occupied. The Driver contradicts you there and he states that signal 11 was clear when he saw it. I am assuming that he could have seen No. 11 for much more than 200 yards.

Sir Alan I will have that checked. That is his statement. (contd) I suggest to you that you pulled 11 before this train g got to UG and you had also pulled 12, but at 10-7 you had this express described to you and you promptly put back 11, and you promptly put back 12 actually after the man had seen it and you turned over your crossover and pulled your Main Line signals. Now, could that have happened?

Α.

Α.

Q.

No, certainly not.

And than having realised the position you put back those signals again and pulled the crossover and split this train. I suggest to you that there was time for you to put back those points to normal, that the train got half way through and you pulled them again.

There may have been time, but I am definitely sure that these points were put back as soon as the 7-15 from Peterborough had gone by. I definitely remember it. It is a matter of getting used to it.

That is the point. You did not know an accident was going to happen. It is routine with you. You did not know the express was coming. The express had not been described to you until 10-7, and that trai. went past at 10-3. You might have been occupied with the Down train for all I know and you left that, that is the suggestion that is running through my mind. It depends on your statement that you put back that crossover in accordance with your usual practice.

Baines. My definite statement is that No. 11 signal was not pulled off until he got into the second indication track.

Sir Alan. The Driver is quite certain that he passed No. 12. There is a direct conflict of evidence as between you and the Driver.

Baines. I am telling you the truth.

bir Alan. You are both doing so, I am sure.

said.

Gir Alan. You do not think you might have by mistake pulled 11 or 12 on your thinking that you were going to let No. 95 follow No. 90 and that would be routine and a very natural thing for you to do, then you had the express on to you and you said to yourself "I must change the route", and it is a thing that must be happening every day?

Baines. I always make the practice, ever since we have had No. 11, never to change until he gets on to the double track.

Sir Alan. I imagine that is so. Even if you had done that, I do not think that has got anything to do with it. Supposing if he had done that, he suggests that he passed the Outer Home at about 45 miles an hour.

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daines. If he was passing at 45 miles an hour, he was over-running. It was beyond his speed.

Sir Alan. He says that both signals were clear.

I am afraid the Driver has made a mistake. As I said just now, I never pull off for a passenger train until both indicators DEF and double track G are occupied.

Sir Alan. In that case he ought to have been slowed at the Outer Home. He says he passed the Outer Home at 40 or 45 miles an hour.

Baines. I am sorry I still think the Driver has made a mistake. I always make a practice for a passenger train coming in the Slow road never to pull off until both DEF and double track G are occupied.

Sir Alan. How can you prove to me that you had not forgetten that that crossover was pulled and that you did definitely pull 11 and 12? Do you see when I mean?

Baines. Yes, I cannot pull No. 10 until I get No. 12.

Sir Alan. The Driver says that he had 11 and 12 off.

Baines. I am afraid he has made a nistake.

Sir Alan. Can you prove to me that he is making a histake? I want to have some proof from you.

Baines. I got the describing signal for 95, 9-32 from Hatfield, at 10-4. It is a three minutes run from Brookmans Park to there. That is where I got the describing signal from - Hawkshead. By the time the 9-32 from Hatfield got towards the Outer Home, or just paat i the Outer Home, I should have the describing signal for the Up express, the first part of 94.

Sir Alan. You told me that you pulled the Up express at 10-7, i and that this accident happened at 10-8. It seems to me on timing you had about a minute in which to put back that crossover and pull it again, if necessary. Can you prove to me that that did not happen?

Eaines. I did not de it.

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Baines.

Mr.Johnson. Did you pull the Up Slow Distant for the previous train over the Up Slow line?

Baines. One cannot be certain. That depends on the previous train passing my track HJ.

Mr. Johnson. You did not know whether you did?

Baines. I cannot say I am sure, but if the previous train had passed my HJ track I was justified in pulling off the Distant for No. 90 off.

Sir Alan. You do not think you left that crossover?

Paines. No, I am sure I did not.

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