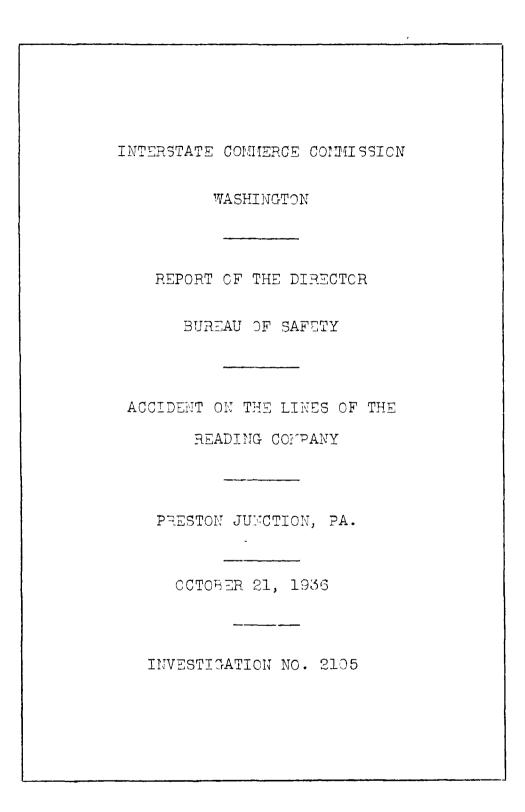
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# SUMMARY

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Railroad:	Reading Company
Date:	October 21, 1936
Location:	Preston Junction, Pa.
Kind of accident:	Derailment
Train involved:	Freight
Train number:	Extra 1668
Engine number:	1668
Consist:	16 cars and caboose
Speed:	15 m. p. h.
Track:	4 <sup>0</sup> 30' curve; 2.55 percent ascending grade
Weather:	Clear
Time:	1:10 a. m.
Casualties:	l killed and l injured
Cause:	Train ran off derail which had been restored to normal position by some unknown person

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December 2, 1936

To the Commission:

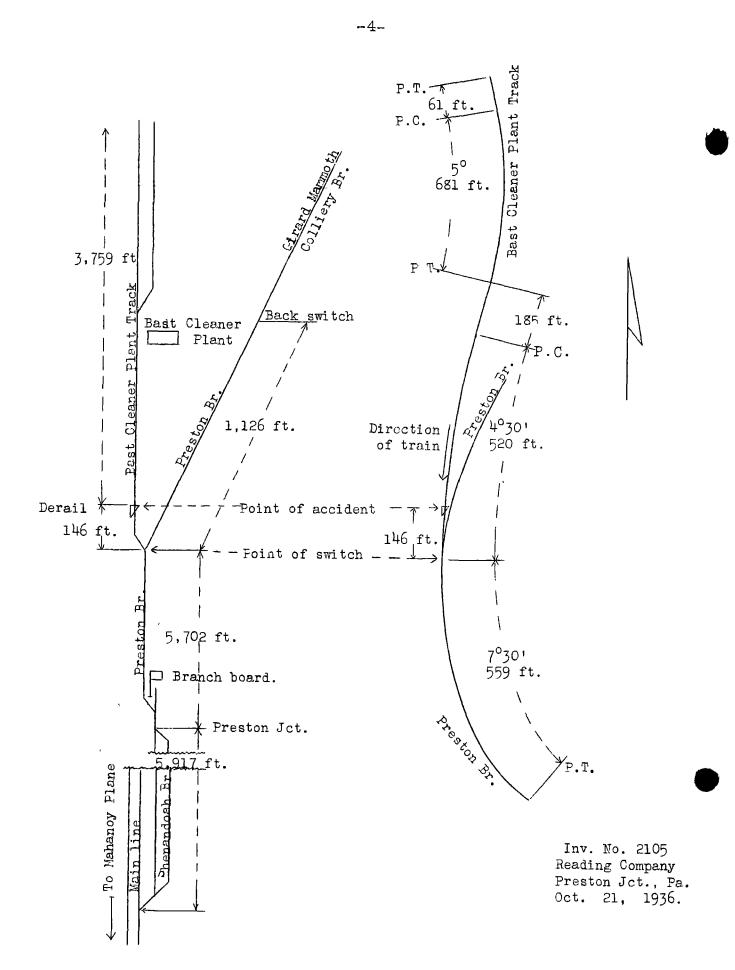
On October 21, 1936, there was a derailment of a freight train on the line of the Reading Company near Preston Junction, Pa., which resulted in the death of 1 employee and the injury of 1 employee.

### Location and method of operation

The Preston Branch of the Reading Company connects with two coal-mining tracks; the branch is 1.3 miles in length and is a single-track line over which trains are operated by book of rules, with the protection of a "branch board" covered by special timetable instructions. The Philadelphia & Reading Coal & Iron Company's track, known as the Bast Cleaner Plant track, 3,905 feet in length, connects with the Preston Branch at a point 1.1 miles north of Preston Junction, the southern entrance to the branch, and the accident occurred on this track at a derail 146 feet from the main-track switch. Approaching this point from the north on the Bast Cleaner Plant track, there is a 5° curve to the right 681 feet in · length, tangent track for 185 feet, and a compound curve to the left 1,079 feet in length, this curve consisting of a 4°30' curve for a distance of 520 feet and a 7°30' curve for 559 feet, the accident occurring on the 4030' curve at a point 374 feet from its northern end. The grade for southbound trains varies from 0.27 to 1.71 percent descending for a distance of 2,400 fect and then there is a vertical curve for 100 feet, followed by ascending grade for a distance of 1,100 feet varying from 1.12 to 2.55 percent at the point of accident, where it then changes to a descending grade of 1.37 percent.

The track, which at the point of accident is in a cut from 15 to 20 feet in depth, is laid with 100-pound rails, 33 feet in length, with an average of 17 or 18 ties to the rail length, fully tieplated, single-spiked, and ballasted with cinders; it is maintained in good condition for a speed of 15 miles per hour, the maximum allowable speed for trains on Colliery Branches.

The derail involved is a Hayes derail of the hinged type, model "E", size 5, located on the west rail at the clearance point, 146 feet from the main-track switch. This derail is hand-operated, with an attachment for locking it when it is on the rail; a switch latch had been installed on the track



tie to engage the movable portion of the derail when it was off the rail, in order to prevent it from rising out of this position.

The weather was clear at the time of the accident, which occurred about 1:10 a.m.

## Description

Extra 1668, a south-bound freight train, consisted of 16 loaded cars, hauled by engine 1668, with a caboose coupled ahead of the engine, and was in charge of Conductor Mort and Engineman Khavm. The engine and caboose backed in on the Bast Cleaner Plant track, having left the main-track switch open and the derail off the track, picked up the 16 cars and started southward, but became stalled on the grade with the engine south of the derail. The train then backed off the grade and again started southward and was derailed at the derail while traveling at a speed estimated to have been about 15 miles per hour.

The caboose and engine were derailed to the right; the caboose stopped on its left side to the right of the track, with its front end headed up the bank, 98 feet beyond the point of derailment, while the engine remained upright and in general line with the track. Neither the tender nor any of the cars was derailed. The employee killed was the head brakeman, and the employee injured was the conductor.

## Summary of evidence

Conductor Mort stated that on backing in on the Bast Cleaner Plant track the main-track switch was left locked in the open position and the derail off the rail. On the first attempt to haul the 16 cars out upon the main track the train stalled with the caboose about to and one-half car lengths south of the derail. The train then backed up to make another start, and just before it reached the dorail the second time the conductor saw that the derail was on the rail; he estimated the speed of the train to have been about 15 miles per hour at the time of the accident. Conductor Mort stated that it took about 5 minutes to back up and start the second time, that all the members of his crew were on the train, and that he was sure that none of them had replaced the derail, and he thought that the derail might have been placed on the rail by some one who wanted to derail a car for the purpose of getting coal, although he did not see any one in the vicinity of a crossing located just north of the derail, nor did he see any one on the banks nearby.

Engineman Rhavn stated that the train was about 30 car lengths north of the derail when they made the first start, but after stalling at the switch he backed up farther and was about 35 car lengths from the derail when he started the second time, and had attained a speed of about 15 miles per hour when he saw the caboose leave the track and immediately applied the air brakes in emergency, stopping the train within a distance of about 2 car lengths. He thought that between 5 and 8 minutes elapsed between the time the train stalled and the time of the accident. After the accident he found that the first marks of derailment were just south of the original location of the derail, which had been torn loose and was lying about 10 feet south of its original position and near the opposite rail; he had passed over the derail five times previous to the derailment, having taken cars from this track earlier in the evening. Engineman Rhawn further stated that he had observed some one standing on the west bank about 60 or 70 feet from the track and 30 or 40 feet south of the derail, and while he could not identify him, he thought that it might have been one of the coal company's officers who patrol that territory.

Fireman Huber and Flagman Coyle stated that when the train backed up after being stalled, it was about 8 or 10 car lengths north of where it stood when it departed the first time.

Police Officers Zeigler and Wynavage, employed by the Philadelphia & Reading Coal and Iron Company, stated that about 12:45 a. m. they started out on patrol from the shanty on the hill overlooking the Preston Branch, the shanty being located about 1,200 flet north of the point of accident. They saw Extra 1669 back in and pick up the cars and about the time the coupling was made they walked to a point about 100 feet enst of the point of accident but saw no one in that vicinity. This point is the locality where coal thieves usually wait for the cars to come out, but on not seeing any one they returned toward the shanty and were about 200 feet from it when the train stalled. When the train stopped suddenly, after starting southward the second time, they knew something was wrong and proceeded to the scene in an automobile. On arriving at the ongine, between 5 and 10 minutes after the accident, Officer Zeigler did not see any one in the vicinity other than the crow, and after taking the injured man to the hospital they patrol...ed the surrounding territory but did not see any suspicious looking persons. Officer Zeigler stated that he did not think the derail had been replaced so as to stop the train for the purpose of stcaling coal; he had been working in that vicinity since March and during that time there had been only one occasion during his tour of duty when any one had attempted 1

to steal coal from a car while en route from the TBast Cleaner Plant, and this attempt was made during daylight hours; he also stated that it was very unusual for crews to take out loaded cars after midnight.

Master Mechanic Spangler stated that he made a careful inspection of the equipment and found nothing that could have contributed to the cause of the accident.

Inspection of the track by the Commission's Inspectors revealed the first marks of derailment to be on the rails and ties directly to the right of and south of the location of the dorail, these marks continuing for a distance of 98 feet, while north of the point of accident there were no marks nor any indications of dragging equipment. The derail had been torn from its position on the ties and the receiving end of the derail block was freshly broken in a manner indicating it had been done by wheels coming in contact with it, while on the portion remaining intact there were flange marks where wheels had passed over it and then slid off to the right, as intended when the derail is on the rail in the derailing position. The track was found to be in good condition for branch-line service.

Inspection of engine 1668 at the enginehouse at Gordon, Pa., on October 22, disclosed no condition that would have caused the accident. The caboose was inspected at Tamaqua, Pa., where it had been moved on its own wheels; the foundation brake rigging was intact and no wheel or other defects were found that would have contributed to the accident.

### Discussion

The evidence indicates that when Extra 1658 backed up to make a second start after stalling on the grade, the movement consumed from 5 to 10 minutes, and that the derail was placed back on the rail during this period. The crew had remained on the train while the back-up movement was made; the conductor stated that at no time did he see any one in the vicinity, but the engineman stated that he saw some one on the west bank of the cut a short distance south of the derail, whom he took to be an officer, although ne could not identify him. It further appeared that two officers of the coal company patrolled the territory at the time the train was picked up, walking to a point within 100 feet of the point of accident, but they said they did not see any one in the vicinity and at the time of the investigation it had not been determined by whom the derail was replaced on the rail.

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Subsequent to the accident a derail operated by a low switch stand was installed at this point, so that it can be locked in both positions, either on or off the rail.

## Conclusion

This accident was caused by a train running off a derail which had been restored to its normal position on the rail by some unknown person.

Respectfully submitted,

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W. J. PATTERSON,

Director.