

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
WESTERN MARYLAND RAILWAY NEAR MOUNT SAVAGE, MD., ON  
FEBRUARY 11, 1921

March 30, 1921.

On February 11, 1921, there was a derailment of a freight train on the Western Maryland Railway near Mount Savage, Md, which resulted in the death of 1 employee and the injury of 1 employee.- After investigation of this accident the Chief of the Bureau of Safety reports as follows:

Location.

This accident occurred on the Connellsville Subdivision of the Elkins Division, extending between Cumberland, Md, and Connellsville, Pa, *in the vicinity of the point of accident* a distance of 89 miles, and is a double-track line over which trains are operated by timetable and train orders, no block-signal system being in use; eastbound trains are spaced 10 minutes apart at open offices. The accident occurred at a point about 3/4 mile west of Mount Savage, about 300 feet from the eastern end of a curve of 7°, which is 2,030 feet in length; this curve leads to the left for eastbound trains. The grade is descending for several miles, being 1.47 per cent at the point of accident. At the time of the accident it was snowing.

Description.

The train involved in this accident was eastbound freight train second No 206. It consisted of 47 cars and a caboose, hauled by locomotive 710, and was in charge of

Conductor Kienhofer and Engineman Larimer It passed Colmar, the last open telegraph office, 10 1 miles from Mount Savage, at 7.11 p.m , and was derailed while travelling at a speed of 12 miles an hour,

The fifth, sixth, seventh, eighth and ninth cars from the locomotive were the cars derailed, one going to the south side of the track, two to the north side, and the other two coming to rest across both tracks. The employee killed was the middle brakeman

#### Summary of evidence

The first indication of derailment was about 4 car-lengths west of where the derailed cars came to rest and consisted of about 40 per cent of a wheel, this fragment being between the rails of the eastbound track, there was also an indentation on the rail made by the broken wheel while it was revolving. The wheels then<sup>N</sup> left the rails on the outside of the curve and after travelling on the ties a distance of about 12 feet ran off the ends of the ties and continued on the ballast to a point about 150 feet east of where the fragment of the broken wheel was found. The other part of the wheel remained on the axle, which was under P & L E gondola 42639, the fifth car in the train; this was the L-1 wheel, the right lead wheel of the first truck. Wreck Master Kearns said he reached the scene of the accident at 10.45 p.m., and at that time found that the broken wheel and its mate were still warm; at this time all of the other wheels under this car were cold

The speed of the train had been controlled entirely by means of the air brakes until within about 6 miles of the point of accident, at which point, the brake-pipe pressure having gotten down to about 60 or 65 pounds, Engineman Larimer sounded the whistle signal for hand brakes. Head Brakeman Davidson said he applied the hand brakes on 8 or 9 cars, including the brakes on the car under which the broken wheel afterwards developed, and that Middle Brakeman Settle applied the hand brakes on 10 or 11 cars beginning at about the middle of the train.

Examination of the broken wheel showed that there had been an old crack which extended from the hub outward into the web; oil had worked into the crack, which apparently had covered 60 per cent of the surface of the <sup>fracture</sup> It is doubtful whether this crack could have been discovered by the ordinary inspection of freight car wheels. The car under which this broken wheel developed arrived at Dickerson Run on the Pittsburgh & Lake Erie Railroad on February 9. A cut journal was found on the L-2 wheel and a new pair of wheels was applied on February 10, following which the car was again inspected. Neither of these inspections disclosed the presence of a defect in the L-1 wheel, neither was it noticed by the men who applied the new pair of wheels to this truck, and the car left Dickerson Run in train second No 206 at 10 45 a.m., February 11. Western Maryland trains operate over the Pittsburgh & Lake Erie tracks between Dickerson Run and Connellsville and accept

the inspection made by Pittsburgh & Lake Erie employees at Dickerson Run.

The wheel which failed was a cast iron wheel made by the Maryland Car Wheel Company in March, 1917. It was a 33-inch wheel, with a  $5\frac{1}{2}$ " by 10" journal, and weighed 770 pounds. It was not definitely determined when and where this wheel was applied to the axle. The car under which this wheel failed had a capacity of 110,000 pounds, and was loaded with machinery weighing 91,350 pounds.

#### Conclusions

This accident was caused by a broken wheel.

There was an old defect in the wheel which led to its failure at this particular time. Although the car had been inspected on two occasions prior to its departure in train second No. 206, and although it had been necessary to apply a new pair of wheels in the same truck, this defective wheel had not been discovered.

All of the employees involved were experienced men, and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.